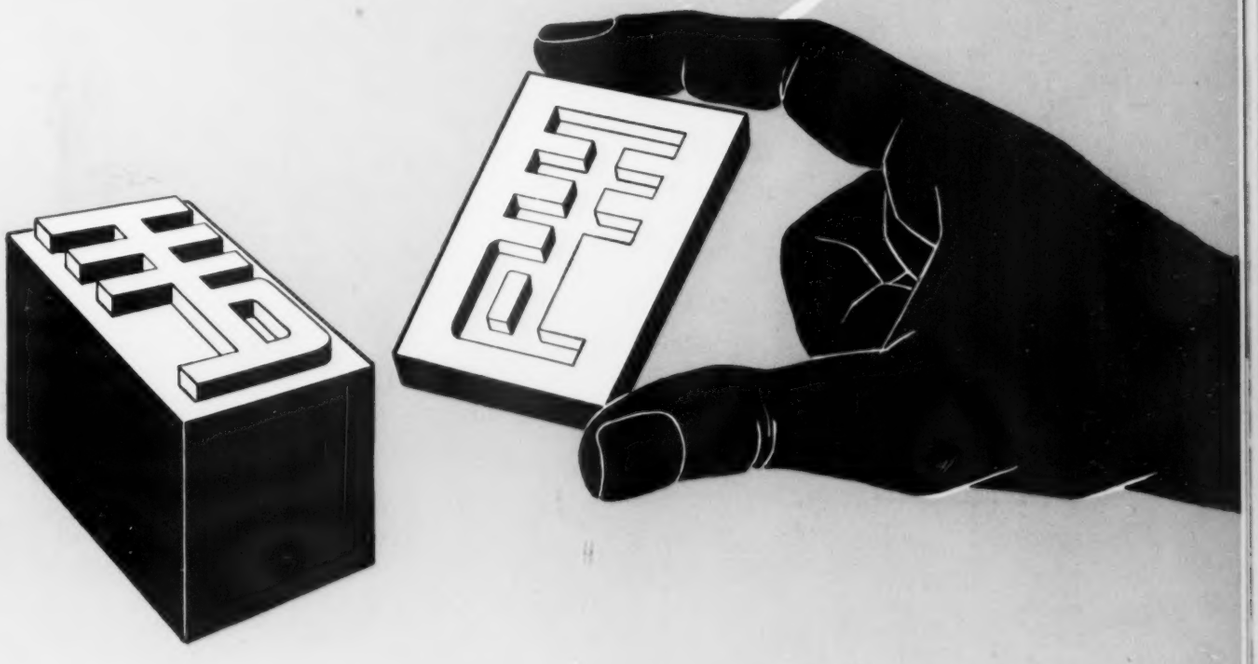
JULY 1952

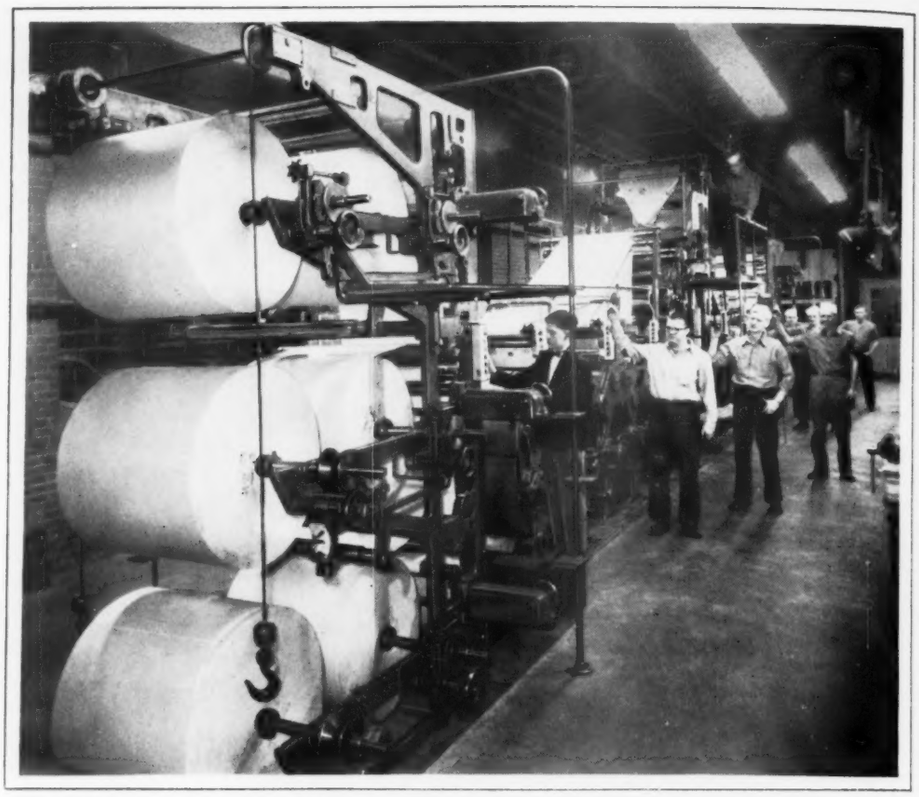
PLEASE ROUTE THIS COPY TO	
Manager	Pressroom Foreman
Production Mgr.	Bindery Foreman
Plant Supt.	Mailing Foreman
Platemaking Foreman	Maintenance Supt.
Composing Foreman	Purchasing Agt.
For filing, please return to	

PRINTING EQUIPMENT *Engineer*



AN INDUSTRY-WIDE TECHNICAL PUBLICATION

from Gutenberg to GOSS



It Took 500 Years-The Years From Gutenberg To Goss— To Develop The Sun-Democrat's New Press

Johannes Gutenberg, of Germany, about 1438 made a printing press from the cheese or cider press common in all large medieval households.

The story goes that he was making a wood-engraving one day when a corner of the block split off. This corner had a single letter on it, and suddenly Gutenberg had an inspiration: Why not make a number of separate blocks with a different letter on each one, putting them together as needed—instead of cutting an entirely new wood-block each time you wanted to print a page?

Thus was invented the movable type that became the basis of modern printing.

Gutenberg's hand-operated press was quite simple. It merely involved pressing two surfaces together through a wooden screw device. For 150 years it was the only form of printing.

The centuries brought basic changes and improvements, until in 1814 the first two-cylinder perfecting press—by which a sheet was printed on both sides—was built in London. About 1875 the modern rapid rotary press was born.

It, also, went through a process of evolution. Just how rapid the process remains is easily seen in comparing the old and new Sun-Democrat presses. The one we are now operating is superior in many ways to the old. It is "the last word" in presses, and only 20 like it have been made by The Goss Printing Press Company, the largest press firm in the nation.

The installation of the press is one of the greatest forward steps in the history of this newspaper—a step designed to equip us to serve our readers and our advertisers as well as possible.

The Paducah Sun-Democrat

Reprinted from a recent issue of The Paducah Sun-Democrat. The press is a six-unit Goss Universal with color cylinder, installed early this year

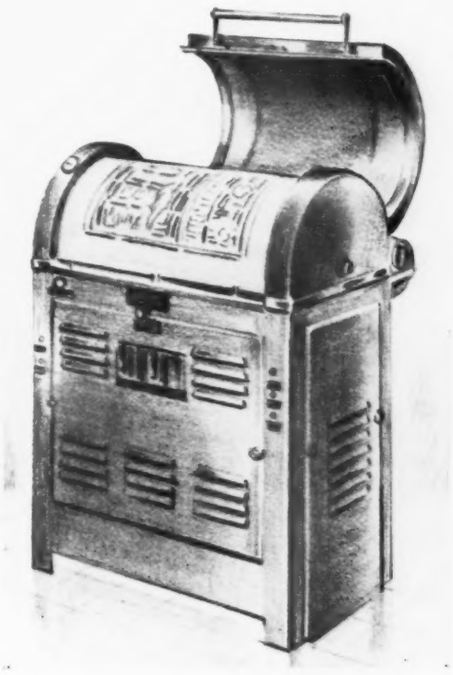
it's **GOSS** *again*

THE GOSS PRINTING PRESS COMPANY
1535 S. Paulina St., Chicago 8, Illinois
Goss Printing Press Co. Ltd., Preston, England

You can save valuable newsprint with a Sta-Hi Master Former!

Sta-Hi Master Formers are helping hundreds of American newspapers, large and small, to obtain maximum dry mat shrinkage necessary to convert to narrower newsprint rolls and thus save money on this costly commodity.

★ STA-HI MASTER FORMER



Savings on newsprint are not the only benefits you realize with Master Former ownership. This entirely automatic mat processing equipment also makes possible a better printed newspaper, eliminates many stereotyping problems.

★ WRITE TODAY FOR YOUR FREE COPY OF "THE STA-HI STORY"—IT GIVES COMPLETE DETAILS ON THE MASTER FORMER AND THE ENTIRE LINE OF STA-HI MACHINERY

STA-HI CORPORATION 235 West Washington Boulevard, Box 152, Whittier, California

FOR COMPOSING ROOM $AVING$

LOOK into the advantages of
MORRISON *Saw Trimmer and Allied Machines*

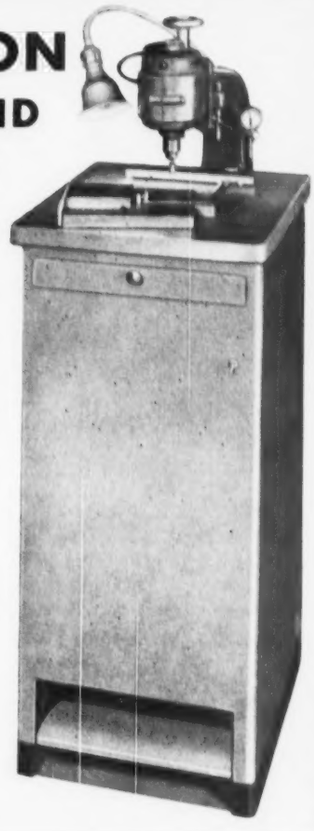
MORRISON PLATE BEVELER

Puts a perfect, burr-free shoulder or bevel on all plates. Cutters work from edge of plate, not the top. You get a smooth die-straight cut every time.

MORRISON MODEL 3-A SAW TRIMMER

Today's more versatile saw. Clamps the work **behind gauge** for improved visibility, easier handling, and greater accuracy. A must for economy-minded composing rooms.

MORRISON ROUTER AND TYPE-HIGH PLANER



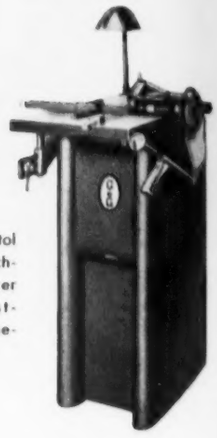
For routing operations, plate corrections, mortising, and type-high planing, you'll save time and money with the Morrison Router and Type-High Planer. Works faster and efficiently, saving make-ready time by having all cuts precision height.

17" throat radius allows routing to center of a 34" cut. Routing depth quickly set by handwheel adjustment. Exclusive Morrison micrometer height gauge guarantees precision. Large work table with straight line guide, sub-table for holding small cuts. Full width foot treadle. ½ HP universal high speed motor, direct drive.

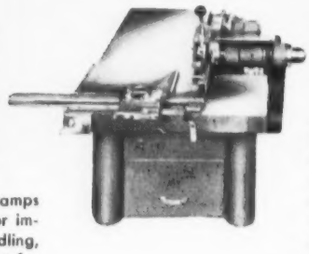
MORRISON SLUG STRIPPER

"Proves itself to the man, within 24 hours." Makes it easy to strip the face of any slug or type character to the exact thickness needed for base heights.

MORRISON MODEL 45 SAW TRIMMER



Model 45 has pistol grip saw blade attachment. Features "Trigger Speed" saw adjustment and many time-saving advantages.



MORRISON MODEL "45" SPECIAL SAW TRIMMER

A low-cost saw trimmer that embodies most of the features of the higher priced Model "45" and Model 3-A. "Behind the gauge" work clamp is standard, conventional "ahead of the gauge" clamp is optional equipment. Also available in a cabinet model.

Other Morrison Equipment includes: Strip material cabinets, waste receptacles, Universal saw blades, router bits, and jig saw blades

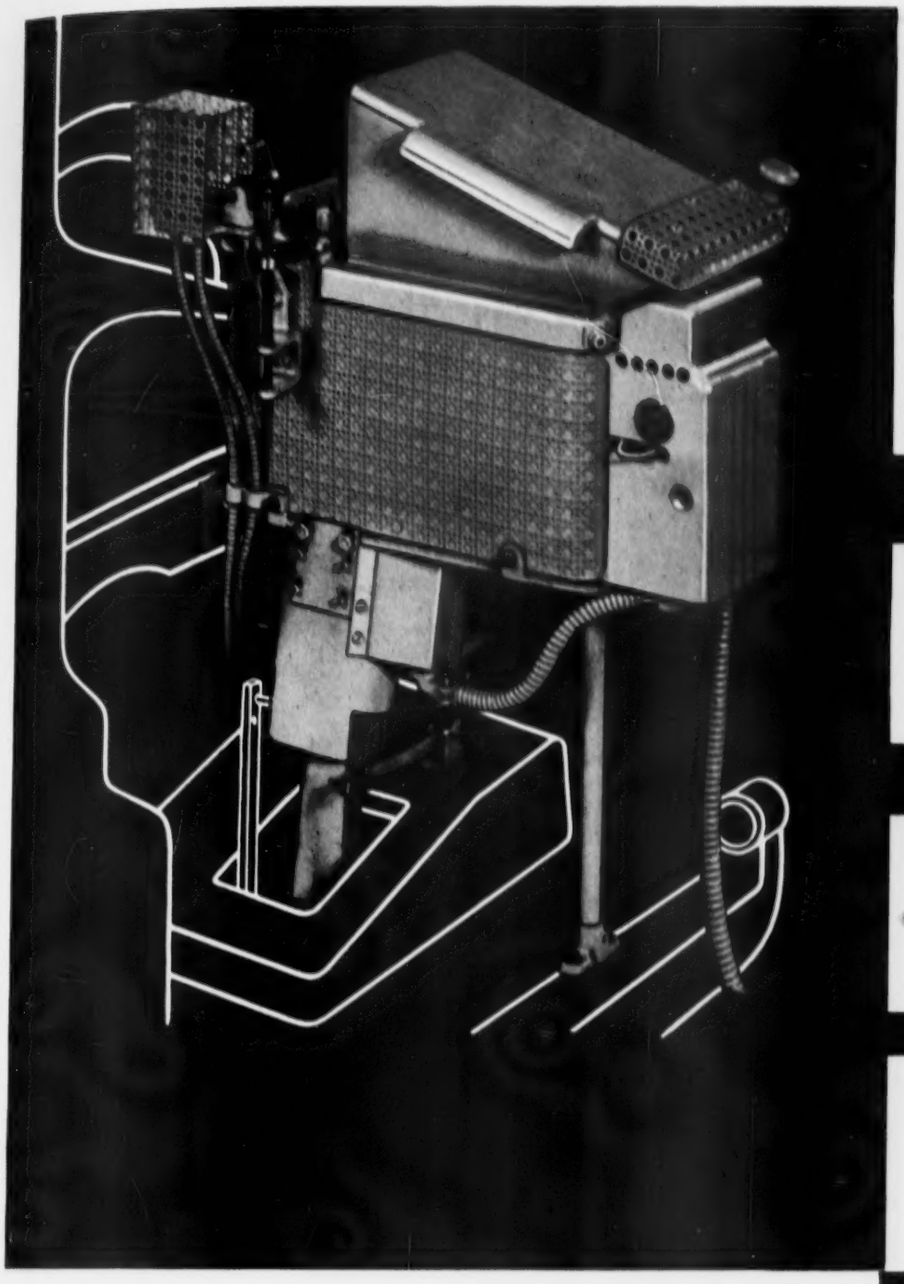
Symbol of Operating Economy

THE MORRISON COMPANY MILWAUKEE WIS.

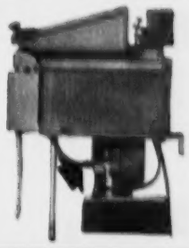
THE *Morrison* COMPANY

PRECISION MACHINES FOR THE GRAPHIC ARTS INDUSTRY

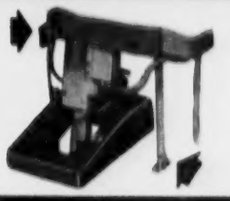
125 W. Melvina Street, Milwaukee 12, Wisconsin



New Design
New Features
New Controls

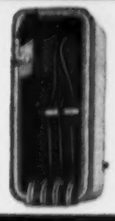


Mechanical men appreciate the [illegible] One half inch clearance between machine pot and Monomelt. Entire unit can be removed in five minutes with no interference to machine.



No weight on machine pot. [illegible] two point mounting—takes all weight off pot. Plenty of working space—no interference.

62% greater capacity. [illegible] pounds [illegible]



New immersion type electric heating elements. More efficient, faster. Delivers more than 150 pounds of molten metal per hour. Highly important on high speed, hand-letter [illegible]

250% more insulation. [illegible] Size of Monomelt reduced 45%. Cuts heat loss and improves working conditions. Copper [illegible]

Plunger removed without touching Monomelt. [illegible]

Distributed exclusively by Linotype and Intertype

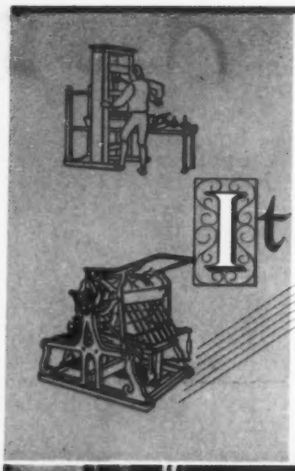
We are pleased to announce the all new Model 52 Monomelt is now being exclusively distributed for line-casting equipment by two of America's great typecasting machine manufacturers; The Mergenthaler Linotype Co., Park Ave. and Ryerson St., Brooklyn (5) N.Y. and the Intertype Corporation, 360 Furman St., Brooklyn (2) N.Y.

Designed by mechanical men, tested and approved by machinists, checked by operators, the new Model 52 Monomelt features 12 major improvements and 87 basic changes.

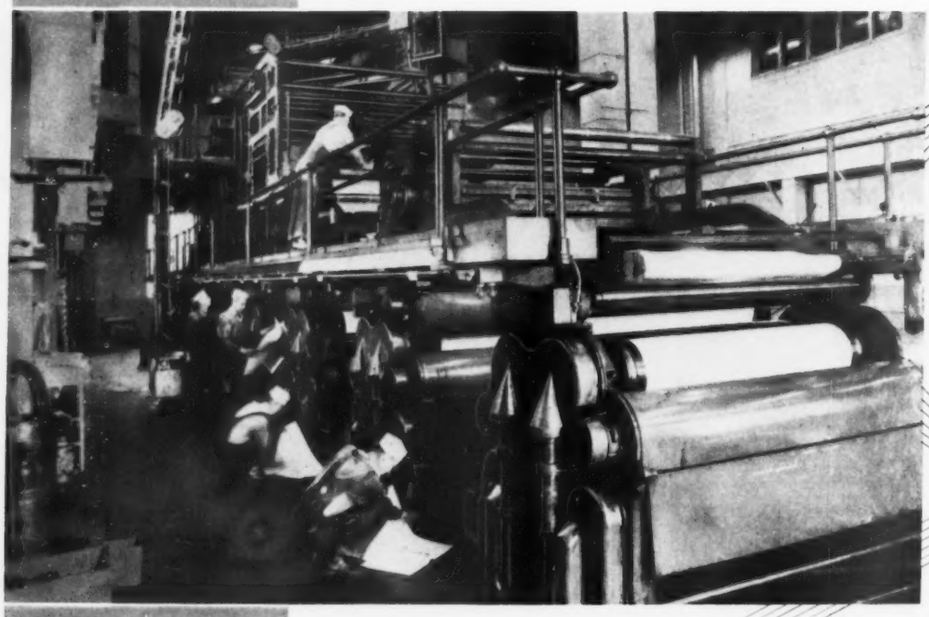
With increased capacity, improved performance, simplified installation and easier maintenance, the new Model 52 multiplies the many advantages of molten metal feeding. Ask your Linotype or Intertype field representative or write for full details.

THE Monomelt COMPANY, INC.

1611 N. E. POLK STREET • MINNEAPOLIS, MINNESOTA



It used to take weeks to convey a single thought...



NOW The Bee's new press can print 7,002,960 words per second

From Gutenberg's time to the present, man has made the greatest advances in presenting the printed word to the world.

Today, The Sacramento Bee's 16 new Scott newspaper press units and color banks for full color printing, are the latest design in heavy duty presses . . . featuring the most advance improvements for high speed, high quality newspaper printing. The press will print a complete 64 page newspaper at the rate of 40,000 to 50,000 copies per hour . . . 7,002,960 words per second.

BUY WITH CONFIDENCE—BUY SCOTT

WALTER SCOTT & CO. INC.

Plainfield, N. J.

PRINTING EQUIPMENT *Engineer*

AN INDUSTRY-WIDE TECHNICAL PUBLICATION

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in the commercial, magazine, private plant and daily newspaper fields.

Volume 82 **Number 10**

PRINTING EQUIPMENT Engineer, Published monthly at 1276 West Third St., Cleveland 13, Ohio, Copyright 1952 by Willsea Publishing Co.

EDITORIAL STAFF

MacD. SINCLAIR, Editor

ADAM HENRY REISER
Associate Editor

EDWARD H. OWEN
Assistant Editor

BUSINESS STAFF

DON WILL, Publisher

William L. Osborn, Eastern Manager, 1712 Grand Central Terminal, New York 17, N. Y. Phone: MUrray Hill 6-5980.

Melburn O. Simmons, Mid-West Manager, 333 North Michigan Ave., Chicago 11, Ill. Phone: DEarborn 2-6467.

Subscription price per year, $3.50 in advance in U.S.A. Single copy current issues, 35c; feature issue $1 per copy; December Equipment and Supplies Catalog Issue $2 per copy in United States, $2.50 outside of United States. (U. S. currency). Subscriptions in foreign countries $4.50 (U. S. currency) in advance. Canadian printing plant mechanical and production executives receiving Printing Equipment Engineer under CCA regulations will be charged $1 postage per year in advance to cover additional postage to Canada.

Member Circulation ECA Controlled Audit

Acceptance under section 34.64 P. L. and R., authorized.

Printed in U. S. A.

LEADING ARTICLES

for July 1952

Wide Slug Automatic Delaying Device 21

Plastic Printing Plates—II 22
AXEL LUNDBYE

Research and Engineering Council Committee Decisions 25

Approved Projects for R&E Council 26

Conference Dates 28

Books 30
Estimating Standards for Printers, 30

ANPA Mechanical Conference 31
Column Width Reduction Methods, 34
East and West TTS Operation, 36
Newspaper Advertising Production, 38
ROP Color Approach, 38
The Production Executive's Job, 39

Equipment and Supplies 41
Bandless Perforator, 41
Direct-Image Paper Offset Plate, 41
Newspaper Supply Catalog, 41
Alaco Vacuum Cleaner, 41
Multijet Carbon Dioxide Press Unit Fire Extinguishers, 41
Niagara Blower Concentrator, 42
Photoelectric Equipment, 42
Letterhead Portfolio, 42
Outdoor Lighting Bulletin, 42
Offset Washup Process, 42
G-E Controls Bulletin, 42
Surface Pyrometer, 42
Improved Challenge Cutter, 43
New Method for Applying and Holding Press Blankets, 43
F&L Standard Colors Book, 43
Dom Catalog Available, 43
Type Metal Chart, 43
Vibration Control Bulletin, 44
Bulge Rubber Mandrel, 44
Plate Bonding Film, 44
Rubber Hose Assemblies, 44
Rubber Plate Pattern Bulletin, 44
ATF Alphabet Cards, 44
Paper Roll Clamp, 44
Universal and Single Range Tachometers, 45
Dehumidification Bulletin, 45
Paper Making Bulletin, 45
Sound-Survey Meter, 45
Gardner Technical Literature, 45
Miller Letterpresses, 45
Lev-lers for Heavy Machines, 45
Line-composing Machine Keyboard Cleaner, 46
Markmaster Dry Foil Printing, 46
Blatchford Bulletin, 46
Redi-Flo Fire Extinguisher, 46

Executive Paragraphs 47

The ABC of Offset, Series Two—Chapter VII 49
GEORGE JOS. LENZER

Acetate Masking 50
JOHN T. WRIGLEY

NPA Printing and Publishing Div. . 52

Patents For the Graphic Arts 53

FOR A BETTER LIGHT IN EVERY WAY

—a light that is steadier, cleaner and more economical, use brighter

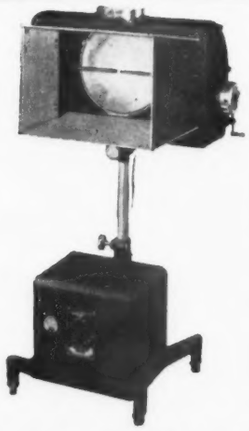
Strong

GRAFARC

Fully Automatic High Intensity ARC LAMPS

GRAFARC 95 AMPERE STANDARD PRINTING LAMP NO. 32000

with No. 33000 transformer and No. 34000-1 stand for use with vertical printing frames under 40" x 50".



GRAFARC 140 AMPERE PRINTING LAMP NO. 32500

with No. 33500 transformer and No. 3400-1 stand for use with vertical printing frames 40" x 50" and larger.

GRAFARC 95 AMPERE STANDARD CAMERA LAMP NO. 32002

for

PLATE MAKING

- Cut exposure time in half
- Assure sharper dots
- Eliminate dot undercutting by cross-over of reflected light rays

CAMERA GALLERY

- Uniform illumination on work of any size
- Extreme steadiness of light volume
- Constant color temperatures
- Eliminate illumination variable in accurate control of densities
- Power to punch through dense kodachromes

STEP AND REPEAT MACHINES

- Precise control of intensity for accurate repeats

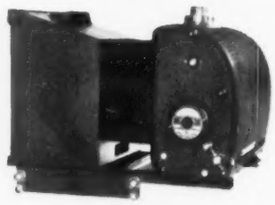
NO OTHER LAMPS MEASURE UP TO THEM IN PERFORMANCE

Approximately twice the light per arc watt results from the use of a silvered glass reflector, instead of a metal reflector. Adapters to fit most cameras and photo-composing machines. Present line supply wiring is usually adequate.

Write today for literature and prices.

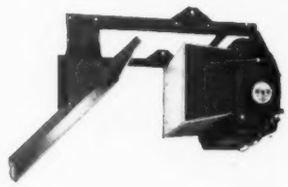
GRAFARC 95 AMPERE OVERHEAD PRINTING LAMP NO. 32221

for use with horizontal printing frames under 40" x 50". Burns in normal position thereby avoiding smoking of reflector and preventing ash from depositing on surfaces in the light path. A 45-degree angle mirror redirects the light downward to the work area.



GRAFARC 95 AMPERE PHOTO-COMPOSING LAMP NO. 32200

for Monotype Huebner MH photo-composing machines. Assures precise control of intensity for accurate repeats.



GRAFARC 140 AMPERE OVERHEAD PRINTING LAMP NO. 32520

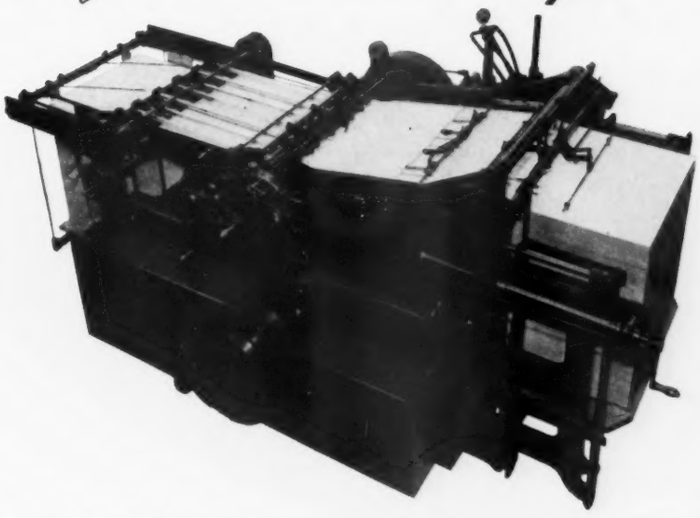
for use with horizontal printing frames 40" x 50" and larger.

STRONG ELECTRIC CORP. 307 CITY PARK AVENUE • TOLEDO 2, OHIO

a small automatic cylinder
with "big" cylinder simplicity

The Miller 21 x 28 SV

Single Color Letterpress

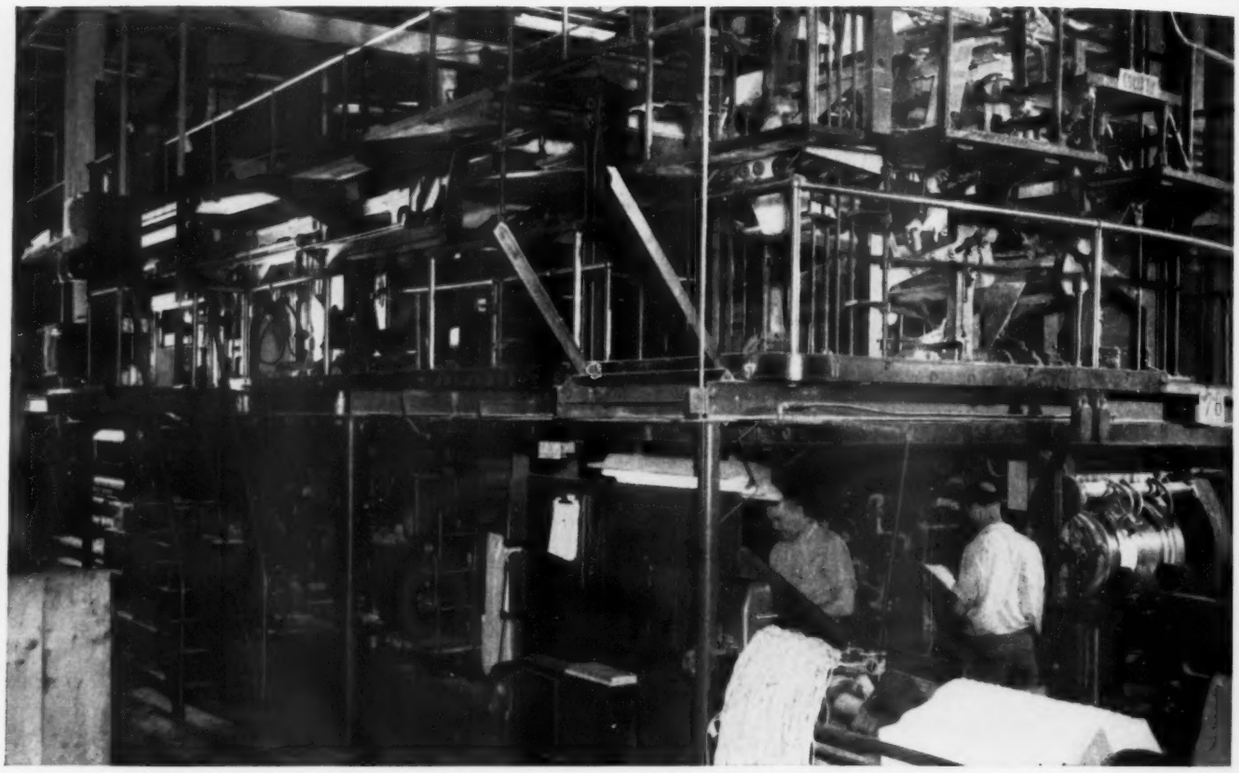


One integral unit from the base up—every part structurally connected and related—solidly set on the floor with four uniform supports. Built to be used as a work horse in any plant. Write today for literature. No obligation.

miller

MILLER PRINTING MACHINERY CO.,
1103 Reedsdale Street Pittsburgh 33, Pa.

Silverstreak Silent Chain helps Reader's Digest meet its deadlines



Link-Belt Silverstreak Silent Chain Drives maintain up to 4600 fpm speeds continuously on this Goss "5 and 5." Little wonder that *Reader's Digest* recently shipped another Silverstreak-driven press to England.

24-hour-a-day, 6-day-a-week schedule easily held by these time-proven LINK-BELT drives

WHEN it's time for *Reader's Digest* to "hit the street," 9,500,000 persons in this country would be let down if it weren't on time. To print this many books calls for the most dependable high-speed drives available.

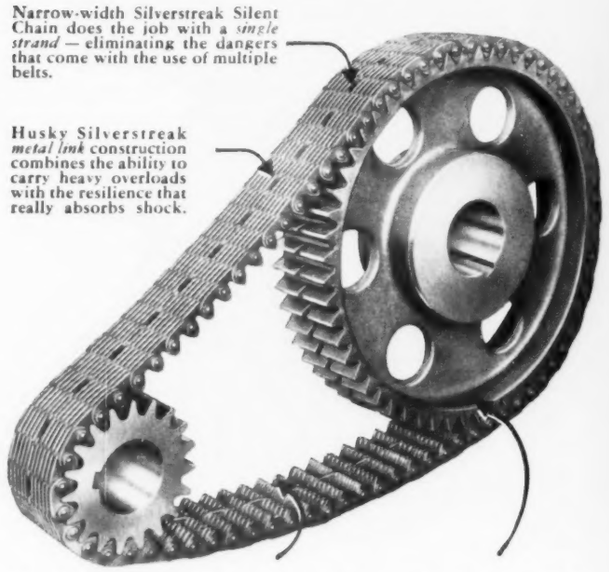
On one Goss press that prints part of the copies of *Reader's Digest*, four 125 hp Link-Belt Silent Chain Drives provide unfailing operation. On two Cottrell presses in this same plant (Rumford Press, Concord, N. H.), Silverstreak Drives have been in service for 12 years with negligible maintenance.

Follow the example of the majority of owners of high-speed, high-production presses. Whether your printing is magazine, newspaper or rotogravure, you'll find it pays to drive with Silverstreak Silent Chain.

LINK-BELT

SILVERSTREAK SILENT CHAIN DRIVES

LINK-BELT COMPANY: Chicago 9, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa), Sydney (Australia). Offices, Factory Branch Stores and Distributors in Principal Cities. 12,853



Narrow-width Silverstreak Silent Chain does the job with a *single strand* — eliminating the dangers that come with the use of multiple belts.

Husky Silverstreak *metal link* construction combines the ability to carry heavy overloads with the resilience that really absorbs shock.

"Pull" is distributed equally across Silverstreak Silent Chain. No possibility of uneven running — no slapping.

Silverstreak Silent Chain doesn't rely on tension to get pulling power. Chain meshes with teeth—gives POSITIVE drive—no chance for slip.

How TIMKEN® bearings help Cottrell press run for less

THIS Cottrell 2-color, sheet-fed, rotary letterpress costs less to operate because vital parts are mounted on Timken® tapered roller bearings. A total of 10 Timken bearings on the main tympan roller, two plate cylinders, main inker drive and main press drive insure greater precision, minimum downtime and long, trouble-free service.

With Timken bearings, roll changes can be made quickly and economically. Cylinders may be permanently aligned and minute pressure adjustments made. And because Timken bearings keep housings and shafts concentric, they make closures more effective. Lubricant stays in—dirt stays out. Maintenance is minimized.

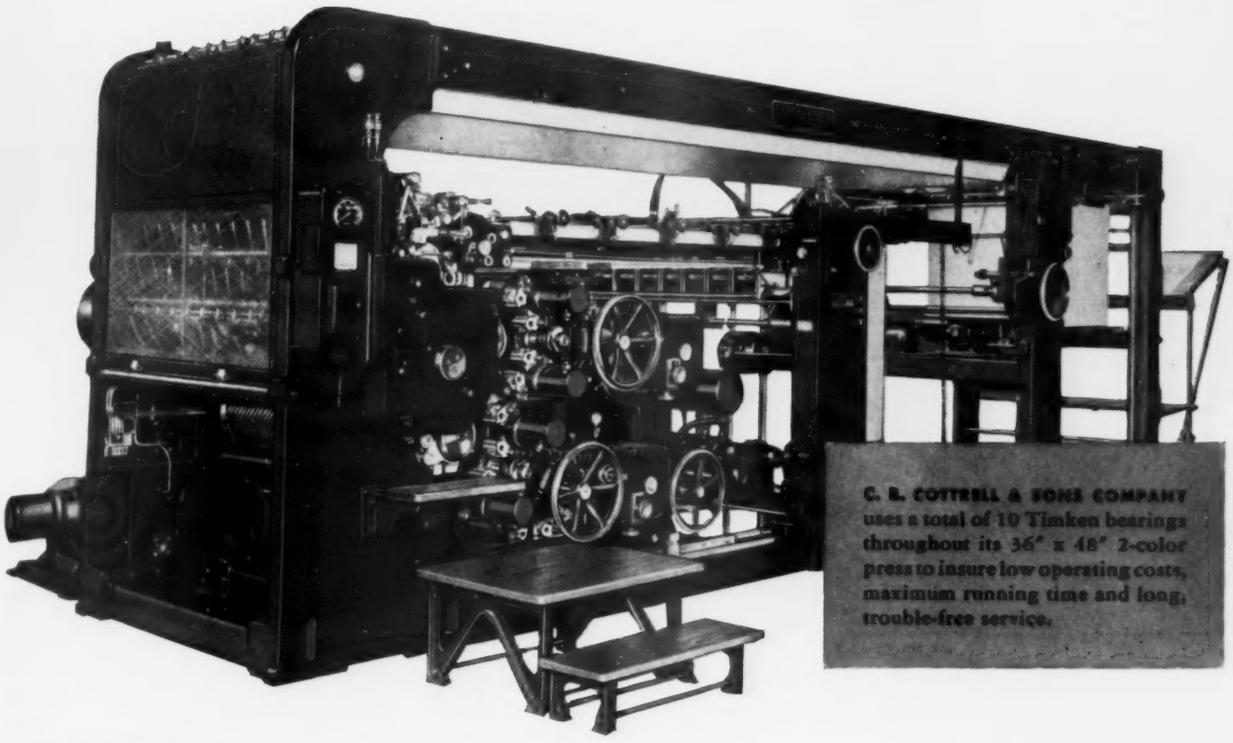
The true rolling motion of Timken bearings plus the smooth finish of their rollers and races make friction negligible. Wear is practically eliminated, power losses reduced.

Timken bearings eliminate all speed restrictions due to bearings. Shorter press runs and more IPH are possible. Greater printing profits can be realized.

Line contact between rollers and races in Timken bearings provides load-carrying capacity to spare. And the tapered construction of Timken bearings enables them to take radial and thrust loads in any combination. Made of Timken fine alloy steel, rollers and races in Timken bearings are case-hardened for resistance to wear and have tough, shock-resistant cores. Timken bearings normally last the life of the press.

Whether you build or buy presses, make sure the trade-mark "Timken" is on the bearings. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

This symbol on a product means its bearings are the best.



C. B. COTTRELL & SONS COMPANY uses a total of 10 Timken bearings throughout its 36" x 48" 2-color press to insure low operating costs, maximum running time and long, trouble-free service.

FINISHED TO CLOSER TOLERANCES

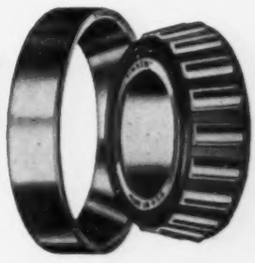
Finishing to incredible smoothness accounts for much of the precise, smooth rolling performance of Timken bearings. This honing operation is typical of the amazingly accurate manufacturing methods at the Timken Company.

The Timken Company is the acknowledged leader in: 1. advanced design; 2. precision manufacturing; 3. rigid quality control; 4. special analysis steels.

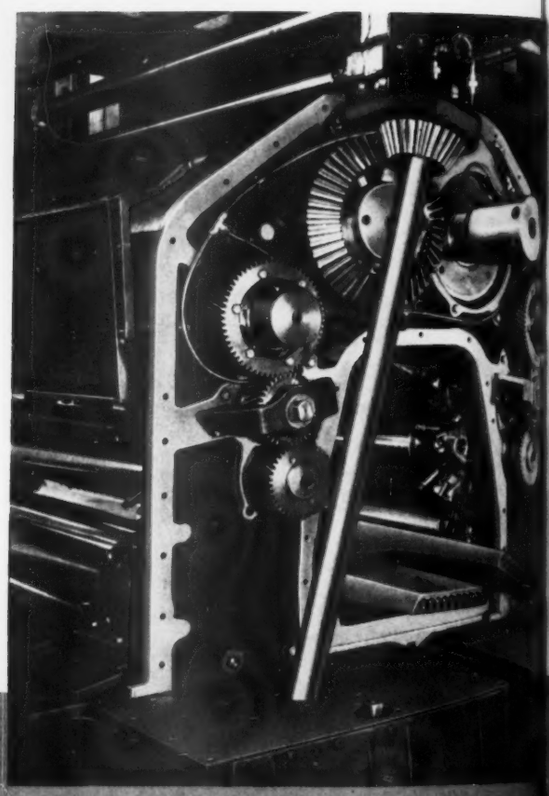
TIMKEN

TRADE-MARK REG. U. S. PAT. OFF.

TAPERED ROLLER BEARINGS



NOT JUST A BALL ◯ NOT JUST A ROLLER ⬭ THE TIMKEN TAPERED ROLLER ⬭ BEARING TAKES RADIAL ◎ AND THRUST →◎← LOADS OR ANY COMBINATION →✳←



IF IT'S Wood IT'S GOOD

WOOD NEWSPA M

PLAINFIELD, NEW

STORY!

Before you choose any pressroom equipment . . . look at WOOD! There's nothing finer built and the "Inside Story" of the materials and craftsmanship that go into the production of WOOD presses, reelroom and stereotyping equipment is important to you.

High alloy steel gears . . . self-aligning preloaded roller bearings . . . precision-made, accurately balanced moving parts . . . a lubricating system that is positive and dependable and the famous WOOD ink motion are combined to produce machinery and equipment that operates quietly, efficiently and economically.

Many of America's foremost newspapers are printed on WOOD presses . . . all of the nation's best equipped stereotype rooms use WOOD equipment. It's the kind of machinery and equipment that newspaper plants can depend upon, day in, day out, for unfailing, top flight performance.

Send for illustrated literature describing WOOD pressroom and stereotyping machinery and equipment

SOME PROMINENT NEWSPAPER PLANTS USING WOOD PRESSES AND PRESSROOM EQUIPMENT

- New York Times
- St. Louis Post-Dispatch
- Cincinnati Times-Star
- St. Paul Dispatch and Pioneer Press
- Indianapolis Star and News
- Philadelphia Evening Bulletin
- Philadelphia Inquirer
- Boston Record
- Providence Journal and Bulletin
- Hartford Courant
- Newsday—Long Island
- Daytona Beach News-Journal
- Columbus Ohio Hilltop Record

MACHINERY CORPORATION

SALES OFFICE: 501 FIFTH AVENUE, NEW YORK 17

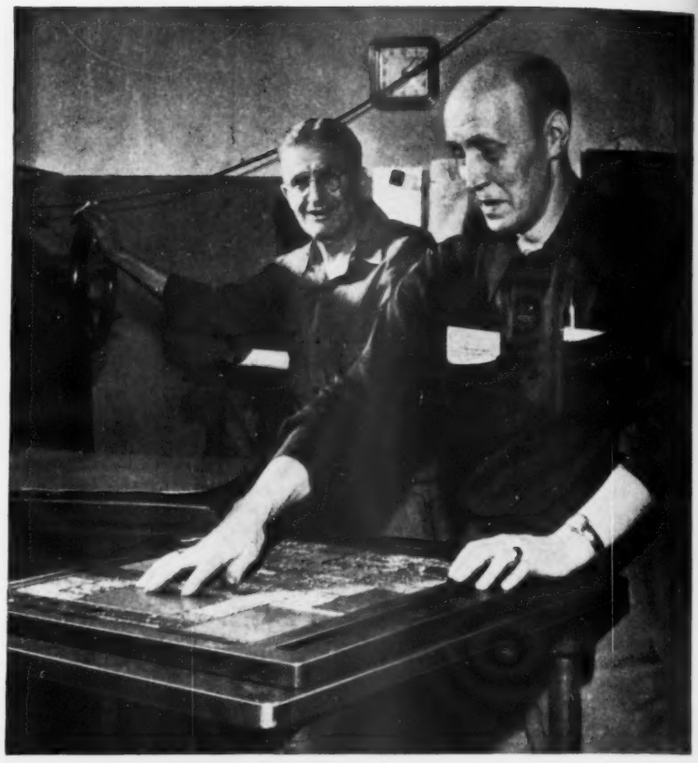
SCAN-A-GRAVINGS save time for "Moline Daily Dispatch"

"FORMS NO LONGER WAIT IN THE STEREO ROOM FOR CUTS BECAUSE WE MOUNT SCAN-A-GRAVINGS ON THE PLATES AND PRINT DIRECT,"

says Production Team

Speed, the big advantage of double plating, became even more significant at the "Moline Daily Dispatch" when they installed a Scan-a-graver. Previously, forms waited in the stereo room for a late spot picture, disrupting pressroom schedules.

The Scan-a-graver (they now have two) overcame this difficulty. Forms now are matted and stereos cast without cuts. Scan-a-gravings of late pictures are produced in a matter of minutes and mounted on the stereos after they are on the press. By printing Scan-a-gravings direct, the "Dispatch" takes full advantage of double-plating speed and improves reproduction quality.



MAKING THE COMBINATION of double plating and Scan-a-gravings work is the responsibility of this progressive production team—Otto Kurrle (left), pressroom and stereo department foreman, and Earl Johnson (right), composing-room chief.

DEADLINES ARE MOVED AHEAD with double plating because the paper can be put to bed fast. With the Scan-a-graver, late cuts can be made in a few minutes and mounted on the stereos after they are on the press.

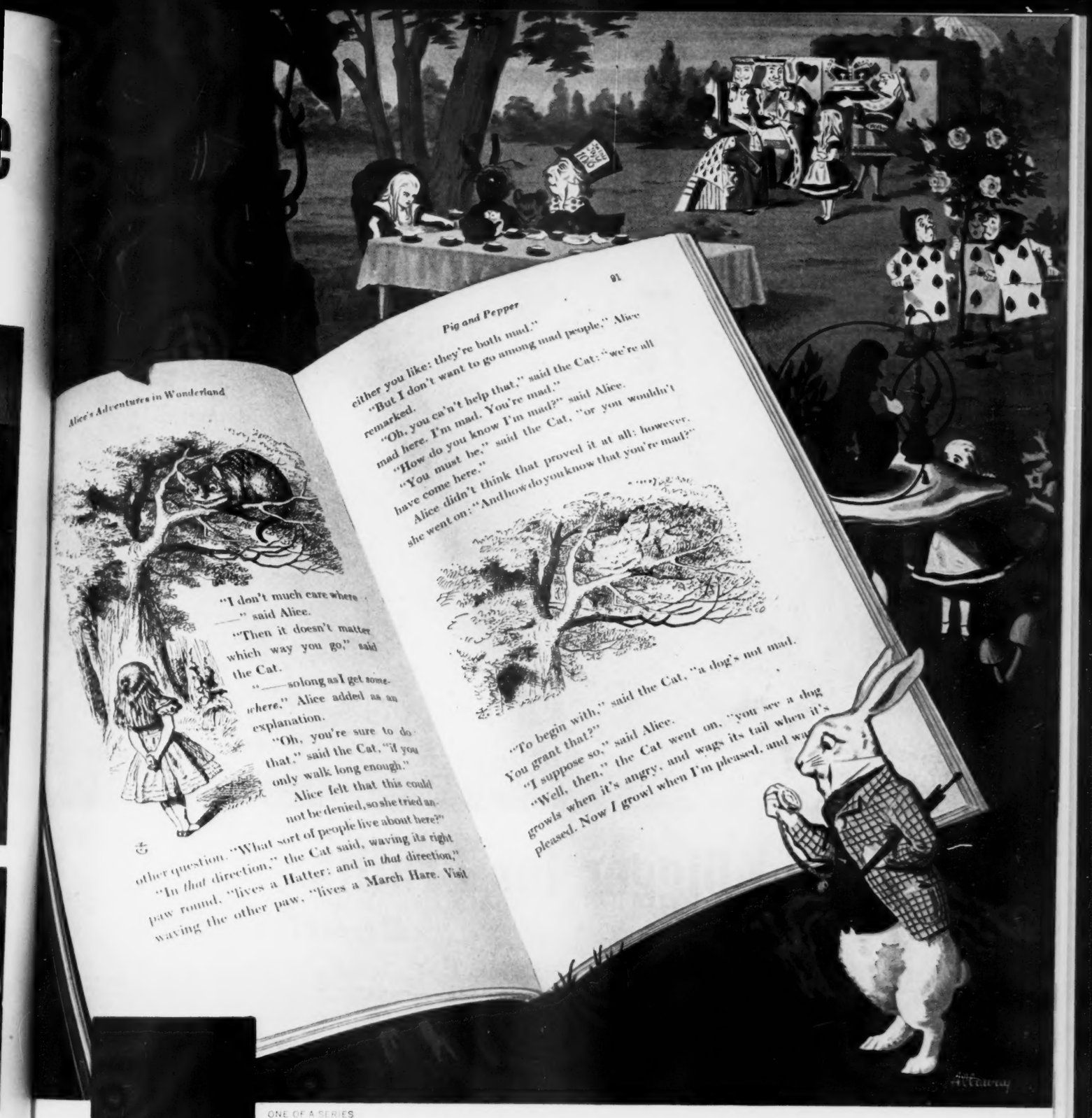
WHEN PICTURES ARE IN and Scan-a-gravings made ahead of time at the "Dispatch," the plastic halftones are mounted on the stereos with double-faced Scotch tape before the plates are put on the press.

TO TAKE FULL ADVANTAGE of the speed and quality inherent in the combination of double plating and direct printing from Scan-a-gravings, Mr. Kurrle (left), keeps a watchful eye on stereo and pressroom activities.

Fairchild customer-service representatives are located from coast to coast. *One of them has been assigned to your area. He will be glad to tell you how Scan-a-gravings can speed up your mechanical-department operations. If you'd like to arrange for him to call, or if you want more information about the Scan-a-graver, write today to* Fairchild Camera and Instrument Corporation, 88-06 Van Wyck Boulevard, Jamaica 1, New York, Department 100-37E.

FAIRCHILD

SCAN-A-GRAVER


Alice's Adventures in Wonderland
"I don't much care where ——" said Alice.
"Then it doesn't matter which way you go," said the Cat.
"——so long as I get somewhere," Alice added as an explanation.
"Oh, you're sure to do that," said the Cat, "if you only walk long enough."
Alice felt that this could not be denied, so she tried another question. "What sort of people live about here?"
"In that direction," the Cat said, waving its right paw round, "lives a Hatter: and in that direction," waving the other paw, "lives a March Hare. Visit
91
Pig and Pepper
either you like: they're both mad."
"But I don't want to go among mad people," Alice remarked.
"Oh, you can't help that," said the Cat: "we're all mad here. I'm mad. You're mad."
"How do you know I'm mad?" said Alice.
"You must be," said the Cat, "or you wouldn't have come here."
Alice didn't think that proved it at all: however, she went on: "And how do you know that you're mad?"
"To begin with," said the Cat, "a dog's not mad. You grant that?"
"I suppose so," said Alice.
"Well, then," the Cat went on, "you see a dog growls when it's angry, and wags its tail when it's pleased. Now I growl when I'm pleased, and wa

ONE OF A SERIES

Just for fun

The sheer imaginative nonsense of *Alice In Wonderland* offered a gleeful escape to children and grown-ups alike fretting under the dreary conventionality of the Victorian era.

Printed by Macmillan & Company, Ltd., London in 1865, Lewis Carroll's story, enchantingly illustrated by Tenniel, became an overnight success. Promptly translated into a dozen languages, it became a favorite of England and the whole world. In the wonderland of printing today, where color, speed, and mechanical skill are as magic as Alice's world, ATF offers you the widest line of processes for better, more profitable printing...Gravure...Letterpress...Offset.

Type faces shown are: Century Schoolbook and Lightline Title Gothic

ATF AMERICAN TYPE FOUNDERS

A Gold-Digger for Profits

ATF LITTLE GIANT 6

It's a profit-makin' little darlin' when it comes to printing . . . and satisfying your customers!

An ATF Little Giant 6 always turns out top quality work. One of the reasons is superior control of ink distribution through such exclusive features as full form coverage with three form rollers. It's the only press under 25x38 with this feature!

Other reasons why the ATF Little Giant 6 gives better control of ink distribution include the positive fountain settings, adjustable gear-driven rollers to prevent slippage and slurring, automatic fountain trip when press is off impression, double roll for solids. The printed sheet is exposed to full view of the pressman and can be removed for inspection and returned while press is running.

In fact, you'll never find another press that is as easy to operate, as easy to makeready. It's the 12x18 automatic job cylinder that belongs in every shop. It can handle 92 per cent of all your run-of-the-hook work at a profitable rate.

Ask your ATF representative about the gold-digging possibilities of ATF Little Giant 6 for you. AMERICAN TYPE FOUNDERS, *a subsidiary of Daystrom, Inc.,* 200 Elmora Ave., Elizabeth, N. J.

Type faces shown are: Contact Bold Condensed, Contact Bold Italic and Garamond Bold.

ATF

Better, More Profitable Printing from the Widest Line of Processes

GRAVURE . . . LETTERPRESS . . . OFFSET

Oh the wonder of a Webendorfer

for making it easy to stay in the lead

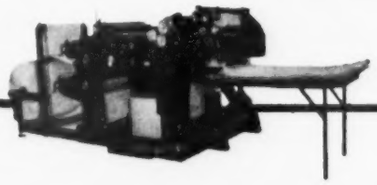
You come out ahead, on a competitive basis, when you're figuring printing on the output of a Webendorfer press.

A Webendorfer web-fed business form press can do almost anything you want it to do. Besides printing on one or both sides of the sheet, it will imprint, number, punch, perforate, slit, sheet, zig-zag fold, or rewind. An auxiliary collating machine will assemble and finish the job.

Webendorfer presses are engineered for high-speed production of every type of business form—continuous, register, inter-leaf, snap-out, zig-zag packs, fan-folds, or any other kind of business form your customers need.

Standardized units are made in two widths, 17 in. and 26 in., with cylinder circumferences of 17 in. or 22 in. Special units can be designed to meet your requirements for offset, rubber plate, or stereotype.

Ask your ATF representative about a Webendorfer web-fed business form press for lower-cost, greater-profit production for you. AMERICAN TYPE FOUNDERS, *a subsidiary of Daystrom, Inc.*, Webendorfer Division, 2 South Street, Mount Vernon, New York.



Type faces shown are: Spartan and Bodoni.

ATF

Better, More Profitable Printing From the Widest Line of Processes

GRAVURE . . . LETTERPRESS . . . OFFSET

Floating Impression

creates a sensation

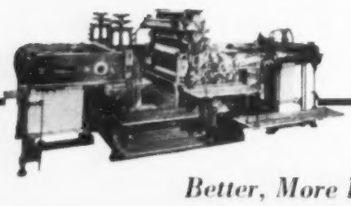
It's the floating impression of a Mann press that enables it to give the beautiful quality offset printing that delights your customers.

It is made possible by such exceptional, exclusive features as no bearer-to-bearer contact.

A Mann press registers perfectly regardless of speed changes. Micrometer cylinder setting permits regulation of pressure to .001 in. between blanket and impression cylinders, saving makeready and running time, assuring finer printing. More sizes and larger rollers prevent ghosting or patterning, give more square inches of ink breakup than other presses.

The Mann line includes seven one-color, six two-color, and the only standard sheet-fed offset perfecting press available in this country. ATF provides expert maintenance and service.

Ask your ATF representative which Mann press you can most profitably own. Also, send for your copy of our new booklet, "*Offset Unlimited from Presses with Floating Impression.*" AMERICAN TYPE FOUNDERS, *a subsidiary of Daystrom, Incorporated,* 200 Elmora Avenue, Elizabeth, New Jersey.



Type faces shown are: Bodoni and Italic, Bodoni Book and Italic.

ATF

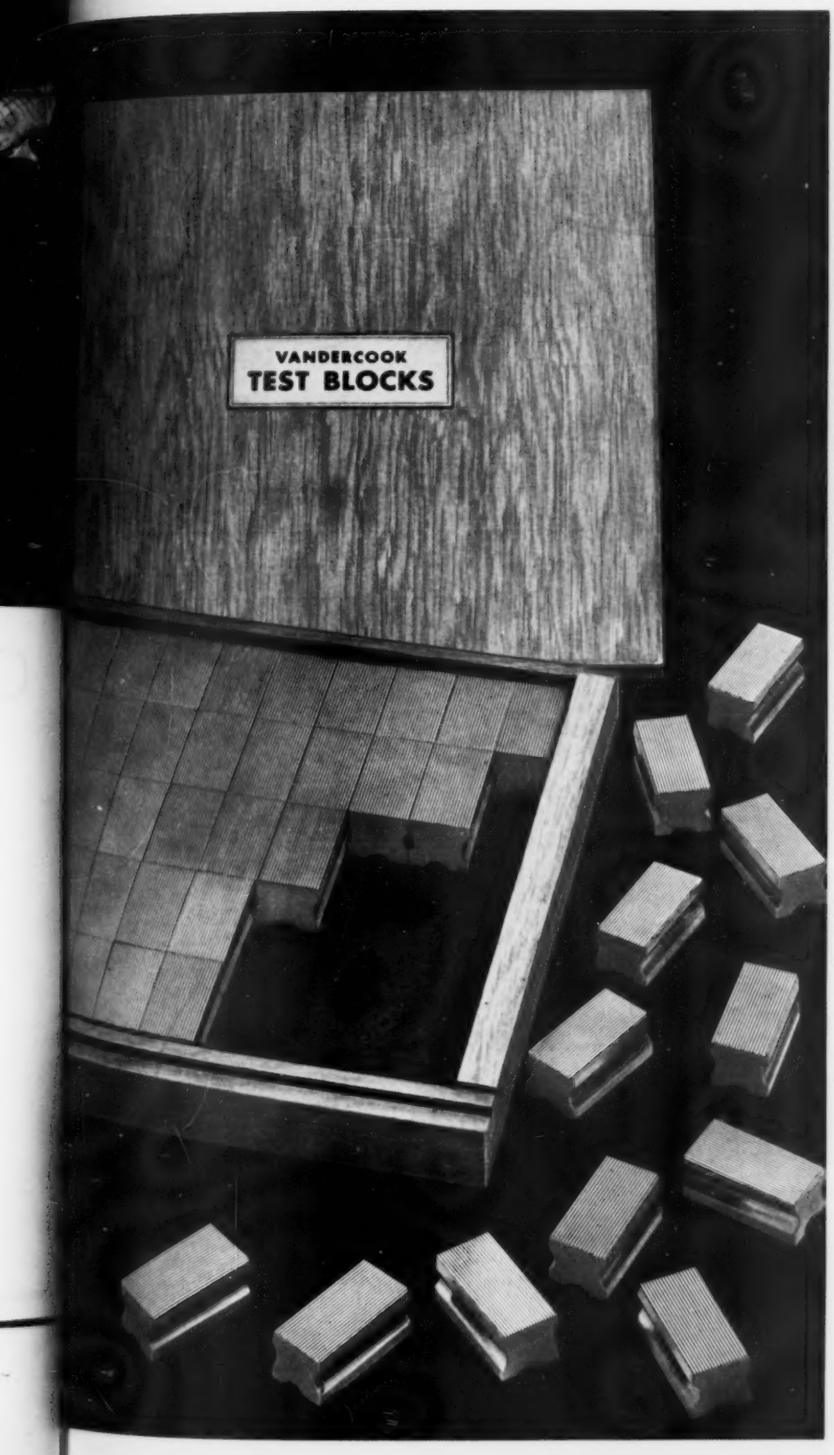
Better, More Profitable Printing from the Widest Line of Processes

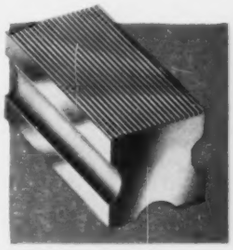
GRAVURE . . . LETTERPRESS . . . OFFSET

SAVE MAKEREADY TIME

BY PRESS CORRECTION WITH VANDERCOOK TEST BLOCKS

Pressmen will welcome *precision gauges* like these Vandercook Test Blocks in order to check the accuracy of impression on their cylinder presses, for they know that among the principal causes of excess makeready are the inaccuracies in production presses. This is rarely a factor on new presses, although it is frequently a large one on older press equipment.





Vandercook Test Blocks are precision gauges, 1″ x 2″ x .918″ in size (*half size illustration on right*) with lines appearing in relief on the printing surface. They are ground and lapped to .918″ with a tolerance of a quarter-thousandth . . . *more accurate than either presses or type forms.* These Test Blocks, when locked loosely on the bed of the press, inked and printed, will clearly show up all impression errors on the printed sheet. This test proof is then made-ready and hung deep in the packing next to the cylinder as a semi-permanent correction of the impression defects on the press checked. They are available either on a rental or purchase basis.

For Further Information Write:

VANDERCOOK & SONS, INC.

900 North Kilpatrick Ave., Chicago 51, Illinois

Largest Producer of Precision Proof Presses and other Pre-Press Equipment for Letterpress, Offset and Gravure

VANDERCOOK PRE-PRESS ...CUTS COSTS!

THE CUTLER-HAMME

unit type newspaper press drives–
SIMPLE, FLEXIBLE, DEPENDABLE

In the Cutler-Hammer Control System for unit drives, each press unit with its own motor has its own motor control. It is a simple matter to cut press units in and out. Troubles such as changing load adjusting resistor switches, equalizing load among motors, circulating currents and excessive current peaks are at an end.

Each unit of Cutler-Hammer Motor Control is built up of simple, familiar, rugged industrial type control components. The kind any electrical man understands and can service. All control equipment can be installed in a separate room. Installation is simple and economical.

The Cutler-Hammer System utilizes simple, sturdy wound rotor a.c. unit motors. . . the dependable type with ample overload capacity for operating press at full speed in event of a motor failure. Also ample capacity for driving additional color decks. These motors are easily installed, aligned and serviced.

A gearhead motor performs inching and threading. Unit driving motors therefore are not energized during these operati

A Cutler-Hammer cam d accelerating device with 82 sp points accelerates motors press units automatically smoothly to any operating sp

Dynamic braking elimin the usual motor with bui brakes. These are some of features that recommend Cutler-Hammer Unit Type C trol System to any executive l ing for maximum production minimum cost and trou CUTLER-HAMMER, Inc., 1 St. Paul Ave., Milwaukee 1,

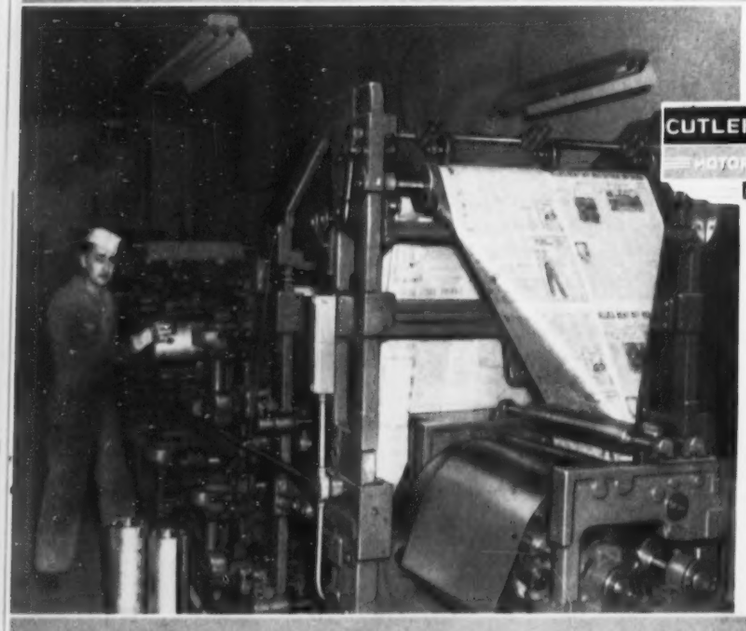
Cutler-Hammer Cylinder Brakes

Stop presses safely in approximately 3 seconds, completely relieving gearing of excessive forces and harmful shocks. Each brake individually adjustable yet automatically coordinated with other brakes.

CUTLER-HAMMER
MOTOR CONTROL
C-H

Cutler-Hammer Newspaper Conveyors

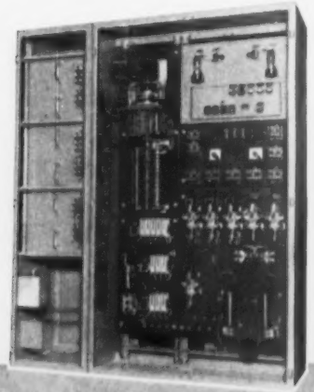
Used in practically every conveyor-equipped plant in North America. Standard Duty handles pages at any speed up to 60,000 I.P. Duty handles up to 96 pages at any to 60,000 I.P.H.



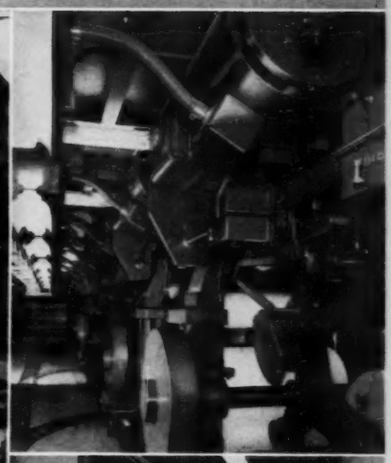
Cutler-Hammer Electronic Control for single motor drive on Goss Dek-A-Tube press in plant of

MADISONVILLE, KY., MESSENGER

"The whole setup is running smoothly, and we are looking forward to many years of satisfactory operation," says Edgar Arnold Jr., Assistant Editor.



CONTROL SYSTEM for

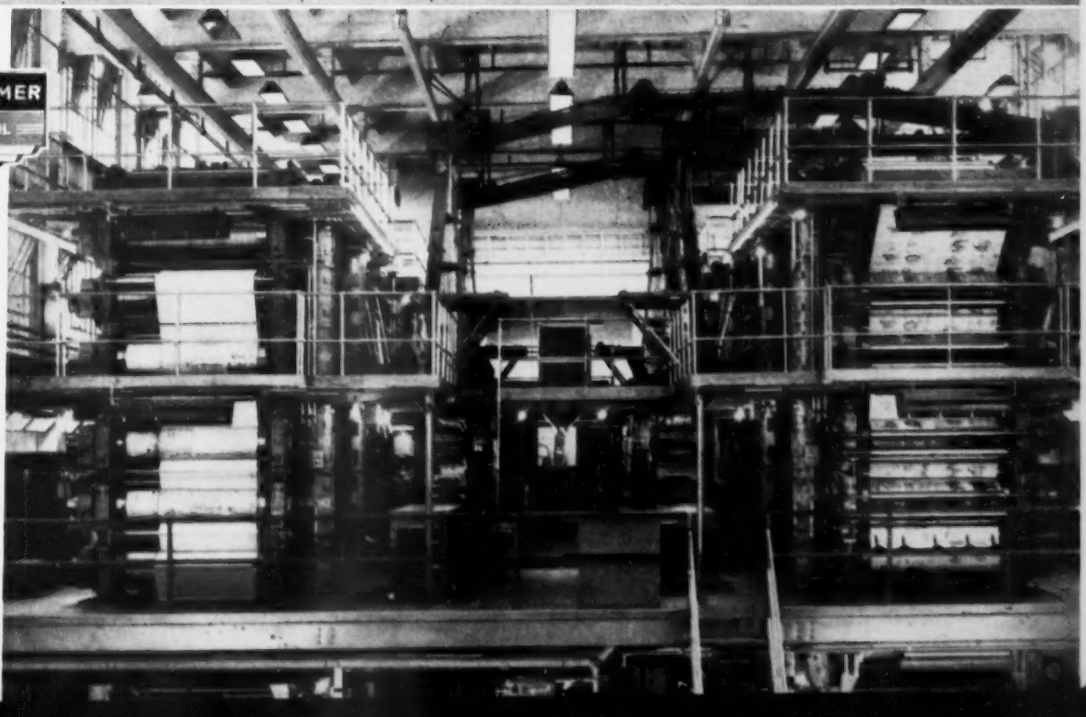


Cutler-Hammer Control System for Unit Drives

WILKES-BARRE, PA., RECORD, TIMES-LEADER, NEWS

This eight-unit two folder Hoe color convertible newspaper press at left, is equipped with unit drive and Cutler-Hammer unit type control. Above, the C-H Control installed in separate room, and a close-up of a drive unit.

CUTLER-HAMMER
MOTOR CONTROL
C-H



Cutler-Hammer Control for
2 Motor Drives on

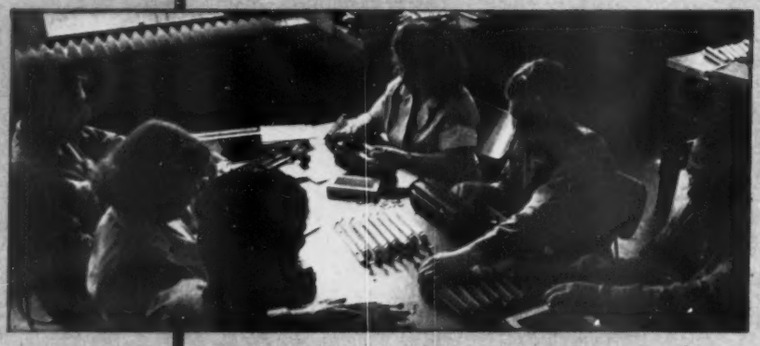
MULTI-MILLION RUN HEARST 4-color Weeklies

"Running very satisfactorily" are these two 24-cylinder color presses equipped with Cutler-Hammer Controlled Drives in the Color Plant of the American Weekly at San Francisco. In addition there are four 24-cylinder presses identical with the above, in the American Weekly plant in Chicago. Approximately 10 Million copies of the American Weekly and 8 ½ Million copies of the Comic Puck Weekly are printed each week.

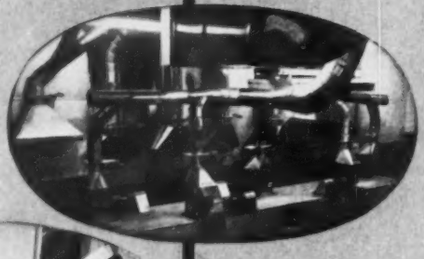
No-Fuss-No-Muss....

WITH

SERVICE



New fonts and sorts shipped from matrix manufacturers are checked against customer's color charts before applying color.

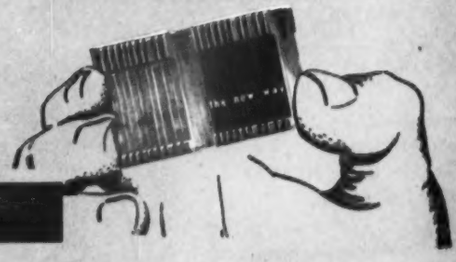


Modern processing rooms in Matrix Contrast plants where matrices are treated before application of colors.

A Matrix Contrast Service Crew operating portable processing equipment in a newspaper plant.

Typical Matrix Contrast Service Truck which some of our 31 crews use to process matrices in your plant . . . day or night.

It has taken over 25 years to perfect Matrix Contrast Service. Now, your matrices are treated by a time-tested process that will not flake off nor gum up your machines. Newspaper publishers everywhere will testify to the economical advantages of the Matrix Contrast Method . . . It's clean, it's proven, it lasts. And, too, there are six service branches and 31 trained service crews ready and equipped to give immediate attention to processing your matrices. When you order Matrix Contrast Service, you can forget about the cleaning and processing of your matrices. Your present matrices are treated in your plant by our well-trained technicians without interrupting your schedules. And, new matrices are delivered several times daily from the matrix manufacturers, located in Brooklyn, to our New York plant, where the reference marks are processed day or night. Our Chicago Service Station also receives deliveries several times daily from the Chicago branch of Matrix Manufacturers and is equipped to operate 24 hours a day.



Copyright 1951, Matrix Contrast Corporation

MATRIX CONTRAST CORPORATION

154 West 14th Street, New York 11, N. Y.

326 W. Madison Street, Chicago 6, Ill.

1105 Trenton Street, Los Angeles 15, Calif.

European Agents: Funditor, Ltd., 3 Woodbridge Street, Clerkenwell Green, London, E. C. 1.

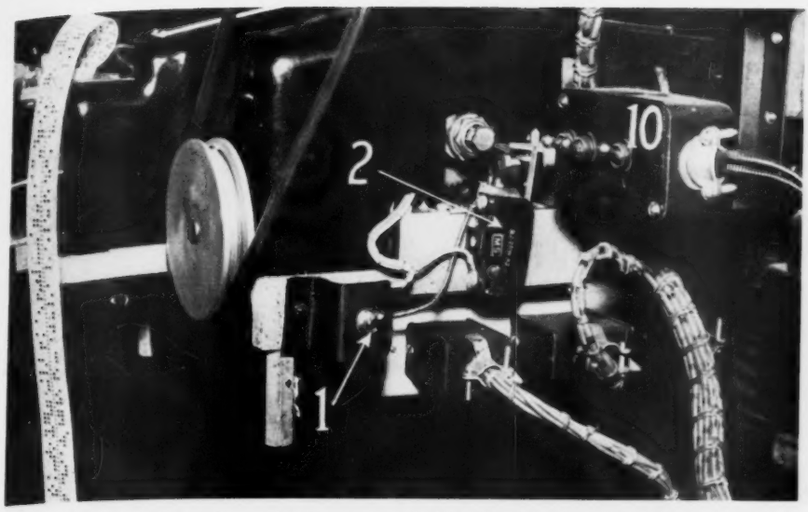


Fig. 1.—View showing Mims Teletypesetter Keyboard Operating Unit Delaying device (rear view from back of Linotype Comet keyboard). Device is used in connection with line delivery carriage when composing double column 8 pt. slugs in the plant of *The News* and *Observer*, Raleigh, N. C. The device delays operation of the keyboard operating unit until the line delivery carriage has returned to normal position. In this way, the magazine channels are supplied with matrices at all times. At *1* is shown the Micro Switch; at *2* is shown the manually operated toggle switch. The three switches indicated on the receptacle at *10* are trouble signal switches and are not part of the delaying mechanism.

Wide Slug Automatic Delaying Device

IN THE composing room of the *News* and *Observer*, Raleigh, N. C., a delaying device has been developed by Linotype Machinist Ivan C. Mims for slower automatic operation of Teletypesetter-operated Comet Linotypes when composing and casting double column slugs (24 picas 4 pts. in the case of the *News* and *Observer*). Composing Room Foreman Ellis Speer is greatly pleased with the device. He tells *Printing Equipment Engineer* that with this device the machines produce about five double column slugs per min. which are regularly operated at 10 lines of 12 pica type per min. In other words, no reduction in the 10-line-a-min. speed is made, but rather the interval between delivery of a matrix line to the casting mechanism is lengthened. The main objective, explained Mr. Speer, is that the delay in delivery of a fresh wide measure matrix line to the first elevator is long enough to permit the distributor returning matrices to the magazine. With the delaying device, there is never an occasion where matrices in any magazine channel are exhausted when casting straight 24.4 measure, 8 pt. In setting poetry with quads on each end of the line there is a possibility of running out of quads. The *News* and *Observer* plant has not experienced this trouble because all its Comets are equipped with quadders.

The device can be applied only to electrically controlled Comet Teletypesetter keyboard operating units, but not on the keyboard operating units not equipped with stop magnets.

In many plants, the tape perforator operator runs a given amount of blank tape to provide time enough for the matrices from each line to be distributed into the magazine. The attachment discussed in this article eliminates necessity for blank tape.

In operation, when the line delivery carriage starts to the left, the Teletypesetter keyboard operating unit is stopped automatically until the carriage is returned to normal position above the assembling elevator.

The only parts of the delaying device that are not already standard equipment on the Teletypesetter Keyboard operating unit are a Micro *1* Switch, in Fig. 2; Toggle Switch *2* and mounting bracket *3* and screws, and, of course, the wires *4* connecting the switches to the terminal block *5*. The terminal block *5* is standard Teletypesetter equipment and is mounted under the top cover of the unit. The switch *6* on the assembling elevator handle is also standard Teletypesetter equipment. Its purpose is to stop the Teletypesetter keyboard operating unit should the assembling elevator fail to return all the way down to its normal assembling position.

The single pole, single throw manually operated toggle switch can be purchased at most any electrical supply or hardware store. Any Off-On switch that will break a circuit is suitable. In its open position, the toggle switch will render the Micro Switch ineffective with respect to the stop magnets in the keyboard operating unit, such as when it is desired to cast 12 pica slugs.

The Micro Switch[1] is fitted with a spring leaf which serves as an operating lever. In this particular application, the circuit is opened and the machine is permitted to operate when the leaf is depressed by the line delivery carriage push rod fork when the carriage is resting in its normal position. When the delivery slide makes its stroke to the left to convey a matrix line to the first elevator, the delivery carriage releases its pressure against the leaf-like lever on the Micro Switch, thus closing the circuit which in turn energizes the stop magnets.

[1]Micro Switch Corporation, Freeport, Ill.

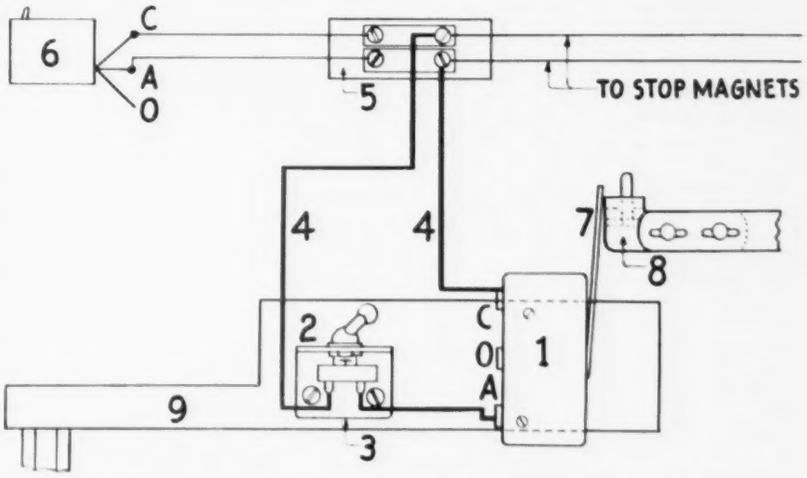


Fig. 2.—Diagram showing wiring arrangement for Mims Linotype Comet Teletypesetter Keyboard Operating Unit Delaying device. Parts are identified as follows:

1.—Micro Switch (BZ-3RW-A2).
2.—Manually operated toggle switch.
3.—Toggle switch bracket.
4.—Wiring to stop magnets.
5.—Terminal block on TTS hanger.
6.—Switch on assembling elevator lever handle.
7.—Spring leaf lever.
8.—Delivery carriage fork.
9.—Keyboard operating unit frame.

Plastic Printing Plates

Technical treatise about the making of rubber, thermoplastic and thermosetting printing plates, together with discussion about aniline rotary printing presses

By AXEL LUNDBYE*

*Research, Kable Printing Co., Mount Morris, Ill.

II.

Molding

The different rubbers are designed to work best at the manufacturer's recommended pressure and time. The vulcanizing press can be the same as used for curing the matrices, shown in Figs. 1 to 4, but here again, if accurate printing plates are expected, precision equipment is required. The platens should be checked for accuracy and also checked for uneven temperature over the whole face of the platens. This is necessary to assure uniform cure as well as uniform thickness of the plate. It is of no use to try to produce a good printing plate from an inaccurate matrix. It has been tried but it cannot be done.

If the face of the rubber plate is not even, all the precision grinding on the back of the plate will not make it level, and such a plate will not print properly. The high spots in the plate will show premature wear and failure. Excessive pressure or squeeze in the molding is undoubtedly the most important single factor in premature failure of rubber printing plates.

In vulcanizing rubber printing plates there are many characteristics that must be dealt with. First and foremost for normal purposes rubber can be considered incompressible. That is to say, the original volume remains practically constant under pressure. Therefore, the molding of the plate must be based on the plastic flow of the rubber rather than the compressibility.

It has already been stated that the storage life of the unvolcanized rubber is very limited, and the rubber must be stored in a cool place to minimize the setting up of the gums in the rubber. If premature air vulcanization takes place (that is to say, the normal deterioration of the stored rubber, which to a degree will restrict the above mentioned plastic flow of the rubber before molding) the proper printing plate will not be obtained. When rubber taken out of storage curls up at the edges, it is a sure sign that too much deterioration has taken place (air vulcanization), and such rubber should never be used for molding plates. That is what is known as dead rubber. If rubber shrinks unevenly, especially in the center of the mold, reject the rubber as it is unfit for molding—it is sticky.

Before determining what type of rubber compound to use in a certain job, first determine what type of printing is to be done, what type of ink, what type of paper is to be used, etc.

As already stated, aniline ink gives the best result with the soft type of rubber. When ink of greater viscosity is used, oil ink or heavy pigmented aniline ink, the harder grade of rubber is recommended, and usually the synthetic materials are superior. If oil ink is used on any length of job with natural rubber plates, it causes the plate to swell excessively.

In molding the rubber plates, bearers or side irons are considered necessary for gauging the correct thickness of the finished plate.

The calculation of bearers for the correct plate thickness can be accomplished as shown in Table III.

TABLE III.

Matrix floor	0.120 in.
Plate thickness wanted	0.090 in.
*Press deflection (if any)	0.003 in.
Bearers to be used	0.213 in.

*This dimension must be determined for each individual press.

Next prepare the matrix for the press. It should first be cleaned of dust and small particles. If it is not, the particles will reproduce in the finished plate. Place the matrix on the movable apron on the press. If solid lines, or solid area, or fine halftone work is to be done, it is recommended to Aquadag the matrix surface. Let the Aquadag dry thoroughly, and then brush the surface with a soft bristle brush. The Aquadag treatment will not alone facilitate the separation of the cured plate from the cured matrix, but will minimize or totally eliminate scumming of the total area. In Fig. 5 the upper and lower platens are indicated with relation to the matrix before closing the press.

This is a simple formula for calculating load in pounds or tons on the ram against pounds per square inch of the printing plate area to be molded refer to Table IV.

It is good practice when molding a pattern that has considerable open area or type form, to use a rubber considerably thinner than the finished plate. For example, a 0.090 in. thick plate can be molded from 0.075 in. thick uncured sheet, or it can be molded from a 0.060 in. thick sheet backed up with several rubber strips of approx. 1 in. width of the same thickness (see Fig. 6). These will build up the finished plate to 0.090 in. if sufficient rubber strips are put in. This backup material need not be in one piece. Small pieces can be laid end to end. Using that type of molding is a very good way to use up all trimmed waste. Of course, it must be understood that only unvulcanized rubber can be used.

TABLE IV.

$$\text{Load on ram in lbs./sq. in.} = \frac{\left\{\begin{matrix}\text{curing pressure}\\ \text{lbs./sq. in. of}\\ \text{plate area}\end{matrix}\right\} \times \left\{\begin{matrix}\text{area of plate}\\ \text{in sq. in.}\end{matrix}\right\}}{\text{Area of ram in sq. in.}}$$

Assuming the ram has a diameter of 20 in.

$$\text{Area of ram } \frac{\pi}{4} \times 20^2 = 314.159 \text{ sq. in.}$$

We will use a plate area of $10 \times 13 = 130$ sq. in., and use a unit curing pressure of 800 lbs./sq. in.

$$\text{Load on ram} = \frac{800 \times 130}{314.159} = \text{approx. } 331 \text{ lbs./sq in.}$$

$$\text{Load on ram} = \frac{800 \times 130}{2000} = 52 \text{ T.}$$

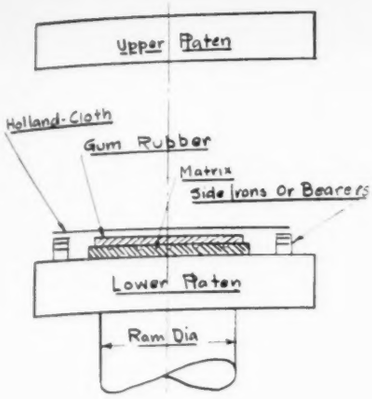


Fig. 5.

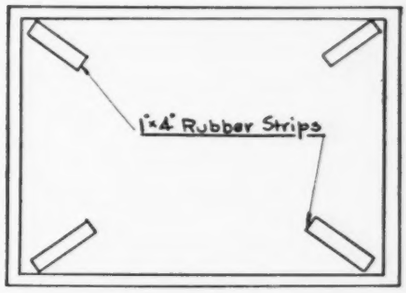
Should the plate have a 90% or more printing area, it is a good practice to use a slightly thicker gauge than the finished plate. The unvulcanized rubber sheet should be cut to cover the printing area of the complete matrix. Usually, the corners of the plate will have a tendency to not fill in completely. That can be overcome by placing unvulcanized rubber strips 1 in. by 4 in. in all four corners as illustrated in Fig. 7.

By using the strips as explained above and in Fig. 7, additional ends and trimmings can be used. Should there be additional trimmings and ends left over, they can be used to vulcanize rubber plates as long as the whole area of the printing matrix is covered.

When molding normally, always mold into the soapstone side of the gum. Should excessive scumming occur, then use the smooth side against the matrix, after first rubbing cornstarch into the pores of the smooth rubber sheet. It can't be stressed enough that the uncured rubber sheet must cover the whole printing area of the matrix before attempting molding. As stated earlier, the unvulcanized rubber sheet should be covered with a piece of holland cloth to keep the rubber from sticking to the upper platen. That is a *must*, and if the holland cloth is not extended over the bearers, the thickness of this cloth must be taken into consideration when the thickness of the bearers is calculated. It is also of great importance not to have any dirt on the back of the matrix or on any of the platens, because they reproduce in the finished plate. Under normal molding conditions and with a standard rubber sheet, no platen dwell is necessary. The pressure might be applied evenly as quickly as possible. However, in some cases where special rubber is used which is not as free flowing as the standard sheet, preheating might be required. On occasions where rubber is too free flowing, it can be somewhat stiffened by preheating. But with all of these special rubbers, it is best and cheaper in the end to get exact molding specifications from the supply house or manufacturer.

It should take approx. 20 sec. to 30 sec. to close press to bearers. The different rubber sheets require different pressures, depending on the subject to be molded.

Fig. 7.



Pressure on some subjects and some rubbers might be as high as 1000 lbs. per sq. in., especially where large plates are involved. After final vulcanizing plates can be stripped hot from the matrix without danger.

There are some drawbacks with rubber used for printing plates, namely, shrinkage. It is not always the same on two equal matrices. This shrinkage can be overcome to a great extent by using one of the many so-called shrink control fabrics on the market. Your supplier can give you additional information about them (Williamson & Co., Wilsolite Corp., and Econo Products, Inc.). However, with all of the shrink control materials, it is still one of the bugaboos that has to be worked out if rubber plates are ever going to be used successfully for color printing.

Should there be distortions in the finished plate, first check the stock for aging. If it curls on the edges, it is too old, so discard it. If any attempt is made to use such a plate, only headaches will be the result. Also check the press platen for variation in temperature and variation in platen, and if there are temperature variations of more than 10 deg. in any two areas, and if platens are out more than 0.003, correct same.

The platens can easily be checked for variation by cutting nine pieces of molding lead approximately 1½ in. diam. or 1 in. square. Then close the press to approximately 200 lbs. sq. in. Open and remove lead slugs, and measure them with a micrometer. The differential in thickness will indicate the amount the platens are out. (See Fig. 8.)

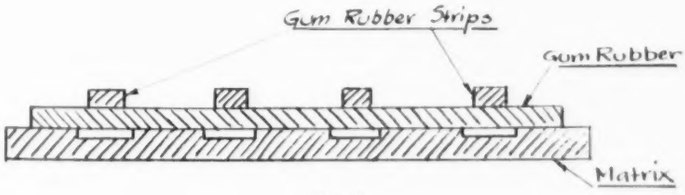


Fig. 6.

It has already been stated that the uncured rubber has a shelf life of from 60 to 90 days. If it is going to be kept any longer, it should be kept under refrigeration at approx. 30 deg. F. Under that condition, the life is extended many, many times.

Should the molding press fail to close at usual speed, or not close to bearers, or require excessive pressure to close, check for insufficient pressure in the molding press used in the job, or it could be improper relationship between relief required in the plate and overall thickness of the plate. In other words, too much rubber is being used in producing that plate.

It is considered bad practice to mold a plate with a thickness in a nonprinting or dead area of less than 0.040 in. A plate with less thickness than 0.040 in. will give trouble, such as crushing the matrix or fracturing the plate. This could also cause the press to not close the bearers.

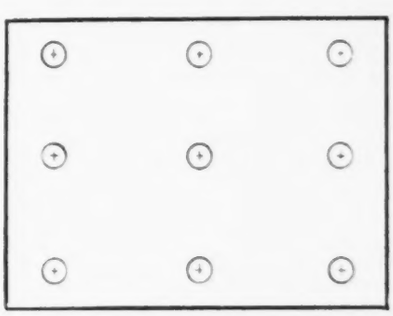


Fig. 8.

It is considerably more difficult to mold a rubber plate where the total thickness is from 0.075 in. to 0.090 in. with a floor of from 0.040 in. to 0.050 in., than a plate having a thickness of 0.120 in. to 0.130 in. with a floor of 0.055 in. to 0.060 in. Besides, the heavier rubber can be manufactured with a shrink control fabric built in, if required.

Finishing the Plate

After finishing molding the plate, it should be looked over for imperfections. If any plate is found to be not up to standard quality, then, of course, a new one should be made. If instructions given above as to molding, curing, pressure, temperature, and time, as well as material, have been followed, it is a very

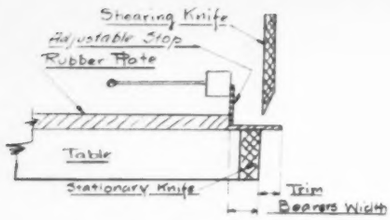


Fig. 9.

rare occasion that plate will have to be remolded.

The plate now has to be trimmed to exact size. The D. I. Arco Precision Machine, manufactured by O'Neil-Towing Mfg. Co., Lake City, Minn., is doing a satisfactory job where we have seen it in operation. To explain by word the operation of this machine might be quite difficult, but by looking at Fig. 9 it will give a clear picture.

The rubber plate to be trimmed should be laid face up on the table, and the type matter and halftone are moved against the stop. Then the knife is brought down to shear off the excess rubber. This is repeated on all four sides if the bearer widths are the same. It can readily be seen that all plates will have the same distance on all four sides if the stop has not been moved during the operation. The stop can be adjusted readily for any bearer width required.

The next step is grinding the plates. For a long time, it was the general opinion that when using the rubber plate for printing it was not necessary to have a plate of even thickness. Anything would do as long as the design was molded into the face of the rubber, because of the rubber being flexible and plastic enough to take up any uneveness in printing. But that was a false idea. And it was soon found that a precision grinder that would give a plate of even thickness was mandatory for good rubber plate printing.

But a word of warning: Rubber plates must be even, more so than for electrotyping or stereotyping, because it must be remembered that when printing properly with rubber plates, only a kiss impression is necessary. The rubber plate must be ground on a machine that will give the same thickness throughout the plate, and the same thickness to all plates ground for the same printing cylinder.

Again I repeat, the impression for rubber plate printing is only a kiss. There must be no pressure on the plate whatsoever when printing. Any attempt to make an uneven plate print by forcing down on the impression will create many kinds of trouble, heretofore unknown to the printer. Therefore, precision ground plates are absolutely a must. In any job where rubber plates are to be used, a rigid precision grinder is required to assure flatness of plate and even thickness of all plates. There are many grinders on the market that can be used, but one of the best we have seen, is manufactured by the Harley Company, Brooklyn. This grinder is a very interesting piece of equipment. It consists of a one-piece rigid casting with a precision ground cylinder, 20 in. face and 14 in. diam. The cylinder is ground and balanced on a spindle and mounted on oversized ball bearings. A 1 h.p. motor is required for driving this mechanism, and ¼ h.p. for the automatic feed mechanism. The rotary brush tends to keep the whole operation very clean. All grinding dust is kept in a closed compartment so that nothing escapes out into the room. A calibrated dial which is set to the machine to grind to any thickness is standard equipment. For operating the machine, first set the dial to the required thickness of the finished plate. Mount plate or plates (more than one plate can be ground at the same time). Start grinder spindle rotating, and finally push the button to start the grinding cycle. As the plate cylinder rotates, the grinder automatically moves the cylinder forward at 0.0005 in. per revolution of the cylinder. When the plate or plates are ground to set thickness, the machine automatically stops, and the cylinder backs away from the grinding cylinder. It is possible to make ready during the grinding by underlaying the fine type areas before mounting the plates on the grinding cylinder. After the plates have been ground, they should be measured with a micrometer in several places on the face, and there should be no more than 0.001 in. variation in the plate. See Fig. 10 for illustration of this grinding machine.

There are various ways of mounting the plates on the press. The most commonly used is by means of Sticky-back adhesives which come in various thicknesses. From 0.015 in. to 0.020 in. is the most common. There is one main drawback to using Sticky-back. Some of the materials have too much variation in thickness. Should that be found to be the case, complain immediately to the manufacturer of the material because there is

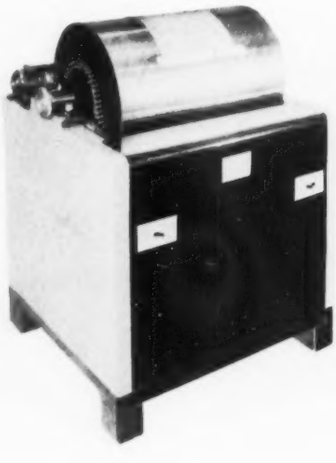


Fig. 10.

no reason why it can't be made in acceptably uniform thickness for the printer.

Another method is to cement the plates directly to the printing cylinder. In that case, only a very thin coat of cement should be used. It should be evenly applied over the whole back of the plate before mounting on the printing cylinder or the block bases. Or the plates can be vulcanized to a thin brass sheet, and then the sheets wrapped around the printing press cylinder. Of course, in that case, a lockup arrangement must be built into the printing cylinder. Still another method of mounting is to cement the plates to a heavy, long fibered manilla paper, or cement the plate to a thin metal sheet which, of course, will be very flexible, and then fasten to the cylinder with some kind of a lockup arrangement.

In the last two cases, the best printing result will be obtained if the plates are mounted on a dummy cylinder of the same diameter as that of the printing cylinder. In all cases, the thickness of the Sticky-back and/or the cement must be taken into account in determining the dimensions to which the plate must be ground.

All the above mentioned mounting processes have their advantages and disadvantages. The most frequently used today is the Sticky-back or cement method by which the plate is fastened directly onto the cylinder.

These methods are for one color only, or if the registration is of not too great importance, because it will be noticed that no arrangement has been made for color registration in the mounting. If we ever get into four color work with rubber plate printing where registration is required, then a precision laydown machine will have to be developed. To our knowledge, no precision four color work has been in production in the United States as of today. In Great Britian some work has been done but with a maximum of 85 line screen in publication work. But the finished product didn't show too great promise as far as registration was concerned. However, in the near future should a rubber-like material be developed which will print up to 133 line screen, then we will have to face a precision register device to fasten the color plates to sheets, or mount directly on the cylinder. The only color work which has been done to date, is in the wrapping and labeling field.

Important—Never use a wire brush on rubber plates. Never use kerosene or gasoline for cleaning natural rubber plates. The recommended type wash for rubber plates is naphtha or carbon tetrachloride, and it should be used very sparingly—that is for the oil inks. For the so-called aniline inks, alcohol is used for type washes. The life of the rubber plate, properly made and used with only a kiss impression should run 500,000 impressions or better without the end product falling below acceptable standards.

(To Be Continued)

Election of Arno L. Zinke as President of Mid-States Gummed Paper Co. was announced recently by the firm's board of directors. He also was named to the Board. Zinke succeeds the late Irving R. McHenry who died October 2, 1951. Also elected to the Board of Directors was Louis F. Weyand, St. Paul, Executive Vice Pres. and Director of Minnesota Mining & Mfg. Co. Mid-States is a wholly-owned subsidiary of MMM.

R&EC Executive Committee Decisions

APPOINTMENT of a permanent staff, election of officers, approval projects and publications and plans for holding a special conference on makeready, highlighted the meetings of the Publications, Planning and Executive Committees of the Research and Engineering Council of the Graphic Arts Industry, Inc., held June 5 and 6 in Cleveland O. The decisions made and action taken at these meetings will significantly affect the Graphic Arts industry in its search to produce quality printing at lower cost.

New Officers and Staff

Elected as new officers for the coming year were President, Edward J. Triebe, Kingsport Press, Kingsport, Tenn.; Vice Pres., Elliott Donnelley, R. R. Donnelley & Sons Co., Chicago; Vice Pres., John H. Davis, jr., Judd and Detweiler, Inc., Washington, D. C.; Secretary, J. Homer Winkler, Battelle Institute, Columbus, O.; and Treasurer, Joseph Schwartz, Westcott & Thomson Co., Philadelphia.

Bernard J. Taymans will continue as Managing Director of the R&E Council. Taymans, known throughout the printing industry in his capacity as Assistant General Manager of Printing Industry of America, has been on loan to the Council during the past three years. He will continue his work with Printing Industry of America and will be assisted in his duties with the Council by Samuel M. Burt, who was appointed Asst. Managing Director for the Council. Burt, formerly with the Educational Testing Service, Princeton, N. J., as printing buyer, and previously Director of Printing Institute, Philadelphia, has been active in local and national Graphic Arts industry educational activities.

The dates for the membership meetings for the next three years were announced as: May 14 and 15, 1953; May 11 and 12, 1954; and May 12 and 13, 1955.

Special Makeready Conference

The special conference on Makeready and Pre-makeready, to be held in Chicago, December 4 and 5, will be under the chairmanship of J. Homer Winkler, Technical Advisor, Battelle Institute, Columbus, O. The Conference will cover all phases of preparation and makeready for letterpress, offset and gravure printers.

The decision to hold a number of Special Conferences on technological problems affecting the Graphic Arts industry was made by the Executive Committee after considerable discussion. It was determined that the best way in which technological progress and improvements could be reported, was by bringing together authoritative speakers on a selected subject in a seminar-clinic type of meeting. It was the opinion of the Committee members that this would provide the opportunity for exchange of information, ideas and experiences, and then to publish the proceedings of the Conference for the benefit of the entire industry. It is planned to hold several such special conferences during the next year and to distribute the reports of the proceedings to members of the Research and Engineering Council at no charge.

Council Membership

The Executive Committee established an annual dues rate of $100 for company members and individuals who are not connected with company members. Associations are admitted to membership without dues, but are invited to make contributions. Individuals who are in companies or associations which are already members of the Council may become members at $15 a year and receive a free copy of Council publications.

These individuals will also be entitled to a vote in the Council.

The new Council membership as of June 4 consists of 42 association members, 144 company members, 5 individual memberships, 5 honorary members and 11 trade paper members. This membership does not include the numerous other present members of the Council who have not as yet transferred over to the new basis.

Executive Committee Increases

The number of members of the Research Council Executive Committee was increased at the June 6 meeting to provide for an official representation from the Gravure Technical Assoc. This brings the number of members of the executive committee, which acts as the Council's Board of Directors, to a total of 32.

The date of September 1 was established as the termination date for all present members of the Council who became members during the period when no dues were assessed for membership where these members have not joined the Council on the new basis.

Coordinate Meeting Dates

A recommendation was made to the Council that it function as a coordinating agent in endeavoring to bring the problem associated with the multiplicity of meetings in the Graphic Arts to the attention of each of the Graphic Arts organizations. Triebe appointed Pfeiffer as chairman of a committee to investigate this problem and to bring about a meeting of representatives of the various Graphic Arts groups to discuss the problem.

Council Publication Program

Bernard Snyder, Chairman of the Publications Promotion Committee, reported on the activity of his committee and advised the industry of the availability of Council publications. He indicated that copies of the booklet describing the Council publications was available for distribution at local and national meetings.

Two New Council Reports

John H. Davis, jr., Vice Pres., and Chairman of the Publications Committee, announced that by early July the Council would distribute the proceedings of the Rye, N. Y., meeting, at which im-

Frank F. Pfeiffer

Up until the time of the election held in Cleveland in June, Pfeiffer has been the only President of the Council since its inception in 1948. He has devoted a tremendous amount of time to organizing work so that the Council could continue functioning with respect to its original purposes. He is Executive Vice President and General Mgr. of The Reynolds & Reynolds Co., Dayton, O. It is to his credit that he has brought through to what appears to be a successful and continuing activity, an organization which has been needed badly in a giant industry.

Edward J. Triebe

Worthy successor to First-President Frank F. Pfeiffer of the Research and Engineering Council is Edward J. Triebe. Triebe has been a Vice President. Of greater interest has been his recent work as Chairman of the Ways and Means Committee. This Committee has been instrumental in financing Council activities on a three-year basis. Triebe is Vice President of Kingsport Press, Kingsport, Tenn. Through the Executive Committee, it will be his responsibility to correlate and carry forward the expanded program of a vitally needed function in the Graphic Arts.

R&E Council Committees Meet—Members of the Executive, Planning and Publications Committees of the Research and Engineering Council, and guests, at the recent Cleveland meeting. Back row, standing, left to right: Samuel M. Burt, R&EC Asst. Managing Director; W. R. Spiller, Harris-Seybold Co.; A. S. Wentworth, Westinghouse Electric Corp.; Peter Loving and Larry Ford, both of A. L. Garber Co.; Dwight L. Monaco, McGraw Hill Publishing Co.; Dellmore Moffett, Kalamazoo Vegetable Parchment Co.; James R. Brackett, General Mgr., Printing Industry of America; W. H. Wood, Harris-Seybold Co.; Wade E. Griswold, Lithographic Technical Foundation; Victor Strauss, Pied Piper Press; Ernest F. Trotter, Walden Sons & Mott, Inc.; Bernard J. Taymans, R&EC Managing Director; Herbert Morrow, Rochester Institute of Technology; Ralph B. Tufts, Cornelius Printing Co.; and Edward H. Owen, *Printing Equipment Engineer*.

Back row, seated, left to right: Joseph Chanko, The Conde Nast Press; Joseph Schwartz, Westcott and Thomson, R&EC Treasurer; Frank F. Pfeiffer, Reynolds and Reynolds Co., Past President; Edward J. Triebe, Kingsport Press, President-Elect; J. Homer Winkler, Battelle Institute, R&EC Secretary; Bernard J. Snyder, American Typesetting Corp.; and Herbert Livesey, National Assoc. of Printing Ink Makers.

Second row, seated, left to right: (two men at left of table) Harold W. Hill, H. W. Hill Printing Co., and G. L. Erikson, Braden-Sutphin Ink Co.; (four men at right of table) Fred L. Baldwin, Dobeckmun Company; C. Howard Thomas, National Publishing Co.; Morris Kantrowitz, Government Printing Office; and William R. Maull, Mead Corporation. Foreground, (two men seated at left of table): John H. Davis, jr., Judd and Detweiler, and Wm. W. Garth, jr., Graphic Arts Research Foundation, Inc.

portant research projects were reported. The 1952 issue of the Listing of Research and Engineering Programs in the Graphic Arts will also be distributed to members of the Council in July. Copies of these two publications will be available for purchase by non-members of the Council.

Triebe Tells of Council's Value

In accepting the office of president of the Council, Mr. Triebe said, "The decisions made at these meetings this week demonstrate the dynamic character of the Research and Engineering Council. Our officers and staff have here developed a program of many sided activities and each phase is of equal importance and value to the welfare of the Graphic Arts industry. The holding of the special conferences and publication of their proceedings alone will more than repay the cost of membership in the Council. Now that we have employed a full-time staff to carry out the decisions of the committees and the officers, I look forward to a long period of growing importance for the R & E Council in the affairs of the Graphic Arts industry.

"The Council's unique character, cutting across all organizational lines and processes within the Graphic Arts industry, its adherence to the principle that men and organizations will work together to solve their mutual problems, inspires all of us who are a part of the Council. I am pleased and honored to have been elected to the office of President of the Council because I believe in its objectives and have faith in its purposes."

Pfeiffer's Statement

Outgoing president, Frank F. Pfeiffer of Reynolds and Reynolds Co., Dayton, O., in acknowledging the praise of various members of the Council for his work in bringing the organization to its present position as an acknowledged integral part of the Graphic Arts industry in this country, said, "I leave the office of President of the Research and Engineering Council in full confidence that the Council is now well launched on its way.

"There have been times during the past three years in which all of us felt that, despite the obvious progress the Council was making, it might not succeed. Intuitively, however, we knew we were right and came back to the task with renewed vision and energy. That we were right was proven after our Rye, N. Y., meeting in December 1951, at which time we decided to reorganize the Council on a dues-paying membership basis. Within three months after that meeting, we had enough members and funds to employ a permanent staff and to establish a permanent office.

"Being fully conscious of the benefits which the R & E Council will eventually bring to the Graphic Arts industry, I am proud of the part the initial officers played in its formation. Speaking for all of us, I also want to express our appreciation to Bernard J. Taymans, Asst. General Mgr. of Printing Industry of America, for his devoted and untiring efforts in working for the Council, and to James R. Brackett, General Mgr. of Printing Industry of America, for his interest, advice and guidance in all phases of the Council's activities. In our darkest moments, these two men never doubted or questioned the eventual success of our organization. I plan to continue my active association in the Council's activities and shall be glad to serve in any capacity our president requests."

Approved Projects for R&E Council

PROJECTS approved for action by the Research and Engineering Council of the Graphic Arts Industry, Inc., at the Cleveland held Executive Committee meeting, are listed below along with a brief description of each activity. Special sub-committees were appointed for each project and the necessary funds were allocated.

Makeready and Preparation Conference

Hold a special seminar clinic type of conference in December on makeready and preparation procedures for letterpress, offset, and gravure printers.

Publication of Technical Abstracts

Development of a program to encourage research and educational institutions to prepare and publish abstracts of technical articles relating to the Graphic Arts industry. This plan is to be submitted for approval of the Council.

Graphic Arts Dictionary

Continue cooperation with Printing Industry of America in development of standard definitions for the industry by utilizing Research and Engineering Council technical committees to review definitions.

Plant Storage and Handling of Paper

Publication of a consolidated report of recommended methods of handling both roll and flat paper stock from the time it arrives at a printing plant, including methods for storage.

Painting and Lighting Report

Issuance of a report on modern methods of painting and lighting for printing plants.

Preventive Maintenance Committee

Accept sponsorship and provide staff time to activate a committee on preventive maintenance in the printing industry.

Establishment of a Safety Code for Standardization of Signalling Devices and Controls for Graphic Arts Equipment

Accept sponsorship and provide staff time for this project in cooperation with the American Standards Assoc. and to invite other interested groups to participate.

Paper Whiteness Standards

To simplify the number of shades of white paper by establishing a limited number of recommended standard shades from pink white to blue white and to have these standards adopted through an educational program.

Rubber and Plastic Plates Report

Publication of a report on the latest techniques and uses of rubber and plastic plates to assist users in reducing costs and improving quality.

Ink Drying

Arrange for a special report to be published on the findings of the Ink Drying Conference held at Lehigh University in June 1950 and supplemented by additional data developed since that time by calling a special seminar-clinic type meeting.

Detergents

Publication of a revised report containing current information as to developments which have taken place since the R&E report *Detergents for the Printer* was issued.

Report on Care and Use of Printers' Rollers

Publication of a report on the proper care and use of printers' rollers. This information does not now exist in published form.

Listing of Research and Engineering Programs

This report is to bring up-to-date the previous R&EC report listing research and engineering programs and projects being carried on by and for the Graphic Arts industry.

Listing of Research Problems

Publication of a comprehensive list of research and engineering problems in the Graphic Arts industry with a brief explanation of each problem. This list will serve as a useful guide to suppliers and others interested in doing research development work.

Development of a Research Program in the Field of Letterpress Printing

Bring together interested parties, explain the need and encourage the establishment of a research program for the letterpress process.

BERNARD J. TAYMANS

Appointment of Bernard J. Taymans as Managing Director of the Research and Engineering Council of the Graphic Arts Industry was reaffirmed at the recent Cleveland meeting. Mr. Taymans has been associated with Printing Industry of America, Inc., since 1941. He served during World War II as assistant director of publishing for the U. S. Navy. Upon his return to the PIA after his war service, he was appointed Asst. General Mgr., a position he will retain in addition to his Council duties.

Distribution of Special Technical Reports

As a continuing activity of the Council, to distribute to Council members copies of technical or research reports which have been published for limited distribution by organizations or individuals engaged in research for the Graphic Arts industry.

Improvement of Composing Room Equipment

This project is based upon the principle of the industry determining what it would like to have in terms of composing room equipment, and through the facilities of the R&E Council, encouraging manufacturers and designers to modify present and forthcoming equipment accordingly.

Study of Composing Room Operations

To conduct a study with the aid of a competent engineer, of composing room materials, procedures, machines and layout for the purpose of identifying areas where attention should be concentrated to achieve reduction in costs and improvement in quality.

Elimination of String Tying of Type

To conduct a study as to the possibility of eliminating the present general practice of tying type with string.

Acetate Proofs

To publish a report on the latest procedures for pulling acetate proofs in cooperation with Intl. Typographic Composition Assoc. and the Government Printing Office.

Report on Composing Room Procedures and Techniques

To gather data on various unique, non-confidential developments in composing room procedures and techniques leading to publication of a report on this subject sometime in 1953.

Counting Methods in Binding

To develop counting methods and mechanisms that will insure the most accurate count on binding machine output and to publish periodic reports of findings for use by printers, binders and manufacturers of printing plant equipment.

Adhesives

In cooperation with adhesives' manufacturers, to hold a special conference, develop standards and publish a report supplying basic information to printers on this subject.

Bindery Equipment

To publish a report on all types of bindery equipment which may be in general use or of special design and purpose. This project also calls for the identification of certain desirable improvements in bindery equipment and the communication of this information to the manufacturers.

Monomelt Distributors

The Monomelt Company, Inc., has announced the appointment of the Intertype Corporation and the Mergenthaler Linotype Co. as exclusive distributors of the Model 52 Monomelt for line-casting equipment. According to Chesley F. Carlson, Monomelt Sales Mgr., field representatives of both companies may be contacted regarding the Model 52 or inquiries may be directed to their various offices.

PMC Purchases Warnock

The Printing Machinery Co. has purchased the business of the W. S. Warnock Co., 1524 Jonquil Ter., Chicago, Ill., manufacturers of metal mounting base systems and bronze quoins. It was announced that PMC expects to continue to supply parts for the W. S. Warnock honeycomb system. The company also expects to begin the manufacture of the W. S. Warnock Bronze Quoin as soon as possible. It was stated that all correspondence concerning Warnock products should now be addressed to the Printing Machinery Co., 436 Commercial Sq., Cincinnati, O.

Conference Dates

(With Organization Names and Principal Officers)

American Photoengravers Association — 1952 Convention, Drake Hotel, Chicago, October 6, 7 and 8. W. K. James, President; Frank J. Schreiber, Executive Secretary, 166 W. Van Buren St., Chicago 4, Ill.

ANPA Mechanical Conference — 1953 Conference, Milwaukee, Wis., June 15, 16 and 17. Conference sessions and exhibits to be held in Civic Auditorium; Conference headquarters, Hotel Schroeder. Chairman of the Committee, L. J. Griner, Production Mgr. Detroit *News;* Manager ANPA Mechanical Dept., Vernon R. Spitaleri, 370 Lexington Ave., New York 17, N. Y.

Fifth District Craftsmen's Conference—Secretary-Treasurer, Robert Wolf, Richardson-Taylor-Globe Co., 4501 Mitchell Ave., Cincinnati 32, O.

Graphic Arts Trade Association Executives—1952 Annual meeting, Plaza Hotel, St. Louis, Mo. October 10 and 11. President, Henry Henneberg, c/o Printing Industries Assoc., 2569 W. Olympic Blvd., Los Angeles 6, Calif.

Gravure Technical Association—Secretary-Treasurer, J. E. Hazel, Room 4800, 30 Rockefeller Plaza, New York 20, N. Y.

Great Lakes Newspaper Mechanical Conference—1953 Conference, Deshler-Wallick Hotel, Columbus, O., January 10-13. President, Harry A. Miller, Mechanical Supt., Dayton (O.) *Daily News;* Secretary-Treasurer, Don Clark, Stereotype Supt., Grand Rapids (Mich.) *Press.* Co-chairmen, Manufacturers' and Suppliers' Committee, Ray Burgoon, Sales Representative, Mergenthaler Linotype Co., 192 Haldy Ave., Columbus 4, O.; Clarence Seaman, Vice President, Imperial Type Metal Co., 1276 W. Third St., Cleveland 13, O.

Illinois Newspaper Mechanical Conference—1952 Conference, Hotel Kankakee, Kankakee, Ill., October 4 and 5. President, Verne Bradley, Kankakee, (Ill.) *Daily Journal;* Secretary-Treasurer, Wilbur L. Augspurger, Peoria (Ill.) Newspapers, Inc.

Intl. Assoc. Electrotypers & Stereotypers—1952 Convention, Cosmopolitan Hotel, Denver, Colo., October 13, 14, 15 and 16. President, C. C. Barnes, Ft. Wayne Engraving Co., 118-120 W. Superior St., Ft. Wayne 1, Ind.; A. P. Schloegel, Executive Secretary, 701 Leader Bldg., Cleveland 14, O.

International Association of Printing House Craftsmen—1952 Convention, Jefferson Hotel, St. Louis, August 10, 11, 12 and 13. President, J. Homer Winkler, Battelle Memorial Institute, 505 King Ave., Columbus 1, O.; Executive Secretary, Pearl E. Oldt, 18 E. Fourth St., Cincinnati 2, Ohio.

International Graphic Arts Education Association — Educational Director, Fred J. Hartman, 719 Fifteenth St., N. W., Washington 5, D. C.

International Typographic Composition Association—1952 Convention, Hotel Statler, St. Louis, Mo., October 9, 10 and 11. 1953 Convention, Mayflower Hotel, Washington, D. C., September 24, 25 and 26. President, John R. Connell, Connell Typesetting Co., 302 E. Eighth St., Kansas City 6, Mo.; Frank M. Sherman, Executive Director, 1015 Chestnut St., Philadelphia 7, Pa.

Iowa Daily Newspaper Mechanical Conference — Secretary-Treasurer, Paul F. Kamler, Mechanical Supt., Clinton (Ia.) *Herald.*

Kansas Newspaper Mechanical Conference — 1952 Conference, Broadview Hotel, Wichita, Kan., September 13 and 14. President, W. A. Blackburn, Herington (Kan.) *Advertiser-Times;* Secretary-Treasurer, Larry Miller, Kansas Press Assoc., 701 Jackson St., Topeka, Kan.

Lithographers National Association — President, Ernest W. Jackson, The Steck Co., Austin, Tex., Executive Director, W. Floyd Maxwell, 420 Lexington Ave., New York 17, N. Y.

Mid-Atlantic Mechanical Conference — Jointly sponsored by the New Jersey Press Assoc. and the Pennsylvania Newspaper Publishers Assoc. Conference Director, Theodore A. Serrill, PNPA General Mgr., 209 Telegraph Bldg., Harrisburg, Pa.

Missouri Newspaper Mechanical Conference—1952 Conference, Hotel President, Kansas City, Mo., October 11 and 12. President, Mike Creasy, Composing Room Supt., Columbia (Mo.) *Tribune;* Secretary-Treasurer, O. K. Hammitt, Mechanical Supt., Moberly (Mo.) *Monitor-Index.*

National Association of Litho Clubs — 1952 Convention will be held in Philadelphia, hotel and dates to be announced later. President, Anthony Capello, 265 Rocklyn Rd., Upper Darby, Pa.; Secretary, Joseph H. Winterburg, Phillips & Jacobs Co., 620 Race St., Philadelphia, Pa.

National Association of Photo-Lithographers—1952 Convention, Hotel New Yorker, New York, N. Y., November 5, 6, 7 and 8. Executive Vice President, Walter E. Soderstrom, 317 West 45th St., New York 19, N. Y.

National Printing Equipment Association, Inc.—Place and time of 1952 annual meeting to be announced later. President, Fred S. Tipson, T. W. & C. B. Sheridan Co., 129 Lafayette St., New York 13, N. Y.; James E. Bennet, Secretary, 140 Nassau St., New York 7, N. Y.

New England Mechanical Conference — President, Howard J. Mehigan, Stereotype Supt. Bridgeport (Conn.) *Herald;* Secretary-Treasurer, Walter C. Crighton, Comp. Room Supt., New London (Conn.) *Day.*

Northwest Mechanical Conference — 1952 Conference, Hotel Duluth, Duluth, Minn., September 20, 21 and 22. President, John Breen, Mechanical Supt., Duluth (Minn.) *Herald* and *News-Tribune;* Secretary-Treasurer, Ralph Carson, Dunwoody Industrial Institute, Minneapolis, Minn.

Pacific Mechanical Conference—Secretary for the North, Edw. N. Conley, color press foreman, San Francisco *Chronicle;* Secretary for the South, Fred J. Moyer, Los Angeles *Daily News.*

Printing Industry of America—1952 Convention, Chase Hotel, St. Louis, October 13-16. President, Arthur A. Wetzel, Wetzel Brothers, 444 N. Broadway, Milwaukee 2, Wis.; James R. Brackett, General Manager, 719 Fifteenth St., N. W., Washington, D. C.

Research and Engineering Council of the Graphic Arts Industry, Inc.—1953 Membership Meeting, May 14 and 15, city and hotel to be announced later. President Edward J. Triebe, Kingsport Press, Kingsport, Tenn.; Official Headquarters, Bernard Taymans, Managing Director, 719 Fifteenth St., N. W., Washington 5, D. C.

Screen Process Printing Association — 1952 Convention to be held in Chicago, dates and hotel to be announced later. President, John W. Key, Admiral Screen Print Corp., 627 W. Lake St., Chicago 6, Ill.

SNPA (Eastern Div.) Mechanical Conference — 1952 Conference, Andrew Jackson Hotel, Nashville, Tenn., August 25, 26, Chairman, W. D. (Red) Jacobs, Mobile (Ala.) *Press-Register;* Secretary, Ray B. Crow, Southern Newspaper Publishers Assoc., P. O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conference — Chairman, Frederic R. Rice, Little Rock (Ark.) *Democrat;* Chairman of Supply Men's Committee, Edwin Yagow, Goss Printing Press Co. City for 1953 meeting to be selected later.

Technical Assoc. of the Graphic Arts —1953 Meeting to be held in Washington, D. C. Hotel and dates to be announced later. President, John McMaster, Graphic Arts Div., Eastman Kodak Co., Rochester, N. Y.; Secretary-Treasurer, Paul J. Hartsuch, Printing Ink Div., Interchemical Corp., 161 W. Harrison St., Chicago 5.

Herrick's Florida Plant

The William C. Herrick Ink Co., Inc., recently opened a bulk storage and distribution plant in Jacksonville, Fla. Ink will be shipped in tank car lots to the Florida bulk station and will be distributed throughout the South by tank trucks, according to John J. Fields III, President. Facilities include a 28,000 lb. capacity trailer truck. The new plant will be under the supervision of Harry L. Leyland, Southern Mgr.

Visits Challenge Plant

A group of 60 Chicago printing establishment operators recently toured the plants of the Challenge Machinery Co. in Grand Haven, Mich. They were members of the Calumet Ben Franklin Club and the North Side Printers' Guild. The visiting groups making the educational field trips were headed by Art Kraft, President of the Calumet Club, and Al Izard, President of the North Side Guild.

New Approach at Craftsmen's Convention

St. Louis, the host club to the 33rd Annual Convention of the Intl. Assoc. of Printing House Craftsmen (August 10-13), with the help of Intl. President J. Homer Winkler, is doing all it can to streamline the convention program with a new approach to all the popular educational features which have made previous conventions successful.

With the cooperation of the speakers, for instance, *Supervisory Training* has become *Training for the Future*, and William Gutwein will present his message with this theme in mind. *Safety—A Production Necessity* by Willard R. Anderson, Plant Engineer, U. S. Government Printing Office, is another subject of interest to progressive Craftsmen. Gordon Holmquist, First Intl. Vice Pres. will preside at this meeting.

Thomas P. Mahoney, Third Intl. Vice Pres., will present Harold Gale, Division Mgr., Label Manufacturing Div., Waples-Platter Co., Dallas, Tex., whose subject will be *Well-planned Programs Pay Off*. Harold G. Crankshaw will talk on *Your Club Bulletin—The Tie That Binds*, which will be followed by a new slant on *Membership—the Never-ending Project* by Harry R. Christopher. Albert L. Kolb, Manager, Printing Dept., Marine Trust Co. of Western New York, will simplify club accounting under the title of *Keeping Records That Count*.

The *Design and Typography* clinic will be headed by Second Intl. Vice Pres., Howard N. King. Under the Chairmanship of Edward A. Aitken, Chairman, Intl. Technical Commission, the new developments clinic *Looking Ahead with the Big Three* will feature the presentation of *Offset Lithography Continues Rapid Progress*, *Letterpress Makes Strides* and *Gravure Presents a Continued Challenge*. Ferd Voiland, The State Printer of Kansas and Intl. General Chairman of 1953 Printing Week, will talk on *Printing Week* under the Chairmanship of A. R. Tommasini, University of California Press, and Intl. Chairman of the Public Relations Commission.

A highlight of the educational program will be the *Eighth District Answers*, a production problem clinic made up of experts in the Graphic Arts industries from clubs in the Eighth District with Intl. President, J. Homer Winkler, as moderator.

Eighth District Participation

The clubs of the Eighth District of the Intl. Assoc. of Printing House Craftsmen, Inc., are contributing to assure the success of the host club—St. Louis—in producing an outstanding convention August 10-13. A production problem clinic to be called *The Eighth District Answers*, with President J. Homer Winkler as moderator, is scheduled for the convention's educational program. Members of the panel will be drawn from the several clubs of the Eighth District. The Eighth District is staging its conference just prior to the convention in the host city.

TAGA Correction

The chairman of the Membership Committee of the Technical Assoc. of the Graphic Arts was incorrect as it appeared in the June 1952 issue of *Printing Equipment Engineer*. Appointed Membership Chairman by John McMaster, TAGA President, was G. L. Erikson, Executive Vice Pres., Braden-Sutphin Ink Co., Cleveland. Mr. Erikson is also Chairman of TAGA's Promotion and Publicity Committee. H. L. McWhorter, Chief Research Engineer, Goss Printing Press Co., Chicago, is Chairman of the Nominating Committee.

GATAE Spring Meeting

Over 45 members of Graphic Arts Trade Association Executives, wives and guests attended the Spring Meeting in Louisville, Ky., at the Brown Hotel, May 15-17. Henry Henneberg (PIA-Los Angeles), President, announced the annual meeting will be held in St. Louis, Mo., October 10-11, Plaza Hotel.

On the program Vice President Richard Stout, Printing Industry of Atlanta (Ga.) reported the results of a survey on the membership situation of associations represented. William Gutwein, C. T. Dearing Printing Co., Louisville, Ky., reported on the progress of the LTF-PIA Foreman-Management Training Program, of which he is General Chairman.

The GATAE Private Printing Plant Committee submitted final copy of its most recent literature entitled *Is Your Printing Department Paying Its Way?* Copies are available from William Boles, Printing Industry of Nashville, 1514 South St., Nashville 2, Tenn.

The concluding session covered a report of Negotiation Trends and Settlements in the field of labor contracts. The problem of the conflict of meetings held by various Graphic Arts groups throughout the country was discussed and some effort is being made to gather information to determine whether a clearing house can be arranged.

GPO Receives Awards

Public Printer John J. Deviny was recently presented two safety awards by Ned H. Dearborn, President of the National Safety Council. One award was for establishing in the Government Printing Office the greatest reduction of industrial accidents in 1951 in the Printing and Publishing Section's nation-wide safety contest. The other award was for reducing accidents by 33 per cent at the GPO and reducing severity 67 per cent below the previous three-year average.

New Address

Paper Manufacturers Co. is located in its new 5 A. address at 9800 Bustleton Ave., Philadelphia 15, Pa. Phone number is ORchard 3-4500. Paper Mfrs. Co. produces Teletype communication rolls, flat gummed papers and small paper rolls of all kinds.

PIA Exhibition of Printer's Self Advertising

Printing Industry of America, Inc., will hold an Exhibition of Printer's and Lithographer's Self Advertising at its 1952 Convention to be held in St. Louis, October 12 to 16. Miller Printing Machinery Co. is sponsoring the event and will award cash prizes totaling $3 thousand, Benjamin Franklin statuettes and honorable mention certificates.

The Exhibition is open to all letterpress, offset, gravure, silk screen and allied process printers who use advertising to develop and sustain markets for the production of their plants. The definition of rules interprets self advertising as booklets, folders, house organs, novelties, annual reports and newspaper or trade paper advertising.

The contest is divided into two categories, campaign advertising specimens and individual specimens. It is not limited to member of the PIA. Closing dates for entries is September 19, 1952. Entry forms, containing the rules of the Exhibition, may be obtained from any of the local offices of Printing Industry of America, or its National Headquarters, 719 15th St., N. W., Washington 5, D. C., or Miller Printing Machinery Co., 1117 Reedsdale St., Pittsburgh 33, Pa.

Linotype Faces Selected

Mergenthaler Linotype Co reports that of the 50 books recently selected by the American Institute of Graphic Arts as the 1952 *Fifty Books of the Year*, 36 were set in Linotype faces. Eleven different Linotype faces were used which included eight books set in Janson, six in Caledonia, and five in Baskerville. Four books each were set in Bodoni Book, Electra and Times Roman. Also chosen for one book each were the following other Linotype faces: Garamond, Estienne, Fairfield, Bodoni and Granjon.

Employment Service

The Graphic Arts Employment Service is the only agency serving the Graphic Arts industry exclusively on a nation-wide basis.

The agency has issued a pamphlet for prospective employees entitled *If You Are Job-Hunting, Should You Use An Employment Agency?* For employers, the bureau has a leaflet termed *Looking for Workers?* Both are condensed from *Changing Times*. They can be obtained, without obligation, by writing to Graphic Arts Employment Service, 307 E. Fourth St., Cincinnati 2, O.

Situation Wanted

SALESMAN—Executive type, mature, youthful, aggressive, tactful; experience in Graphic Arts industry in ten East and Midwest states. References from leading equipment, ink, supply and advertising firms. M. O. Jones, 3909 Windom Pl., N. W., Washington 16, D. C. Phone: Emerson 0863.

BOOKS

Estimating Standards for Printers

A REPLACEMENT of one of the books in the Standard Management Series published by Fred W. Hoch Associates, Inc., is the 278 page text *Estimating Standards for Printers*. The new book, written by Fred W. Hoch, replaces the *Standard Book on Estimating for Printers*, publication of which has been discontinued and is now out of print. The book has been written so as to bring up-to-date all estimating information on methods, machines, and operations in the letterpress, platemaking and binding divisions of the Graphic Arts industry.

Hoch's offering is designed to give the industry, and the student of estimating and printing, a comprehensive explanation of all the operations entering into the printed product. It has been prepared with general descriptions to assist in understanding the many phases of the industry. The specific production schedules, graphs and tables shown in the text should help the estimator regarding average production for the industry.

As explained by the author, scientific estimating is based on production averages or time study standards of an industry or shop as the case may be. The combination of elementary estimating procedures and average or standard production charts, schedules, tables and graphs provides a valuable volume for use in the production office or school. The elementary explanations and problems should be of particular help to the student of printing.

Typical of the material covered in the book are chapters on paper; slug, Monotype and hand composition; copyfitting, page makeup; imposition and lockup; makeready and press running; and ink and bronzing. Other portions deal with cutting; folding, stitching and trimming; bindery operations; and art work, engraving and electrotyping.

Among the new features in the book are page makeup operations and time evaluations for machine composition as now based on a scientific method of estimating. Time per line is used instead of the square inch method. The chapter on paper stock contains new and detailed information. Simplified methods of ascertaining weights of odd size standard book and bond papers are also included. Cutting schedules have been amplified including use of larger lifts and three-knife and continuous trimmer operations.

The production tables and schedules shown in *Estimating Standards for Printers* contain hour and decimal hour evaluations for all production. These hour and decimal hours are also dollars and cents values at $1 an hour, which when extended at plant hour cost rates represent the plant cost rates for the operations. This phase of estimating is based on Hoch's Estimating and Copyfitting Calculator, a description of which appeared in the December 1951 issue of *Printing Equipment Engineer*.

Estimating Standards for Printers—by Fred W. Hoch. Book consists of 278 pages; size, 6¼ in. by 9¼ in.; yellow pebblegrain cloth cover with brown stamping. May be ordered from *Printing Equipment Engineer*, 1276 W. Third St., Cleveland 13, O. Price, $5.25 per copy, cash with order.

SNPA (Eastern Div.) Mechanical Conference

The Southern Newspaper Mechanical Conference, Eastern Div., will be held in Nashville, Tenn., August 25 and 26 at the Andrew Jackson Hotel.

The committee in charge of the conference is arranging a well-rounded program, and a large attendance is expected. Principal speaker will be William Baumrucker, jr., Production Mgr. of the Washington (D.C.) *Times-Herald* and chairman of the ANPA Mechanical Research Committee. Mr. Baumrucker will talk on *Recent Developments in Newspaper Mechanical Research.*

The program will feature separate group meetings in which each of the different crafts will have an opportunity to discuss fully its own particular topics. The separate meetings will be followed by a general session for the discussion of interdepartmental topics.

Chairman W. D. Jacobs of the Mobile (Ala.) *Press-Register* has announced the topic leaders, as follows:

Composing Room—C. LeRoy Ray, Winston-Salem (N.C.) *Journal & Sentinel*.

Pressroom—S. L. Sellers, Birmingham (Ala.) News Co.

Stereotyping Dept.—Roy Vickery, Atlanta (Ga.) Newspapers, Inc.

Engraving Department—Warren L. Schrieffer, New Orleans (La.) *Times-Picayune*.

Mailroom—M. M. Hussey, Tampa (Fla.) *Tribune*.

Machinists—Fred Morris, Kingsport (Tenn.) Pub. Co.

Smaller Newspapers—Cliff Wilkinson, Huntsville (Ala.) *Times*.

Production Managers and Mechanical Superintendents—W. L. Knighton, Birmingham (Ala.) News Co.

Inquiries concerning arrangements for supply and equipment exhibits should be addressed to Ed Hundley, chairman of the Supply Men's Group, whose address is: American Type Founders, 282 Forsyth St., S. W., Atlanta 2, Ga.

Estimating Standards For Printers

by Fred W. Hoch

THIS latest 278 page addition to the Standard Management Series has been prepared for industrial and student use. Production schedules, charts, tables and graphs contained in the text are to aid the estimator in a better understanding of average production for the industry. Chapters cover paper; slug, Monotype and hand composition; page makeup; imposition and lockup; makeready and press running; ink and bronzing; cutting; folding, stitching and trimming; bindery operations; and art work, engraving and electrotyping.

$5.25 per copy
Cash with order

PRINTING EQUIPMENT ENGINEER
1276 W. 3rd St., Cleveland 13, O.

IPI Contest Winners

Thirty prize winners in the 16th Annual IPI Essay Contests were announced this week by Fred J. Hartman, Educational Director of the Intl. Graphic Arts Education Assoc., which sponsors this annual competition in cooperation with Interchemical Corporation, Printing Ink Div. More than 15,000 students competed for the $1,690 cash awards.

ROBERT FISH LESLIE HAZLETON

First prize of $250 in the Essay Contest for Young Women was won by Leslie Hazleton, Campbell (Calif.) Union High School senior. Robert Fish, fourth year student at Tucson (Ariz.) Senior High School, carried off first prize of $250 in the Essay Contest for Young Men.

Second prize of $150 in the Essay Contest for Young Men went to Phil C. Baker, printing student of Oshkosh (Wis.) High School.

Color Printing in a Free World was the subject of the contests. A jury of five judges selected the winners. Harry L. Gage, Graphic Arts Consultant to the Mergenthaler Linotype Co., acted as chairman of the jury for the sixteenth consecutive year.

ANPA Mechanical Conference

deals with problems of high shrinkage, column width reduction, industrial relations, Teletypesetter operation, ROP color and mailing techniques in San Francisco meeting

THERE was an attendance of approx. 900 production and mechanical executives at the San Francisco ANPA Mechanical Conference. Held jointly was the 1952 meeting of the Pacific Newspaper Mechanical Conference. Because of the distances involved in traveling, better than 50 percent of the attendance was from the coastal states and those states immediately adjacent.

No Agreement About High Shrinkage

With the exception of the Mailroom and Newsprint sessions, the subject of "shrinkitis" came up with respect to further reduction in newsprint roll widths. While the majority of the executives recognized the economic necessity for attempting to do something about newsprint conservation because of the two recent price rises of $10 per T. in the cost of newsprint, no agreement existed on the quality of newspaper printing with respect to present shrinkages. One group of executives feels that present newspaper printing is far superior to several years ago at which time lower stereotype mat shrinkage was used. The other group of executives feels that distortion, particularly in halftones, prevents good printing and causes muddy appearing halftones and insurmountable registration problems in connection with color work.

It seemed to be the consensus of opinion of most executives, however, that the advertising agency is to blame for the poor reproduction qualities of national advertising plates, with respect to improper etching depths, omission of register marks in color plates and other mechanical difficulties.

Problems Placed in the Hands of the ANPA Committee

At one of the sessions, Charles Hentschell, Business Mgr. of the St. Louis *Post-Dispatch*, submitted a motion to refer the entire problem of high shrinkage, narrower column widths, addition of another column to the page establishment of mechanical standards, and other details to the ANPA Mechanical Committee, which in turn will prepare a presentation and present it to the ANPA Board of Directors. The motion passed unanimously.

Industrial Relations

After opening preliminaries had been disposed of at the opening session of the ANPA Mechanical Conference, Industrial Relations came in for presentation of excellent papers by nationally known speakers. It is to the credit of the Mechanical Committee that speakers were selected from within the ranks of the newspaper publishing field with the exception of one (President Martin Reed of Mergenthaler Linotype Co.) whose company is closely allied with the newspaper industry. Successively, as time passes, these Industrial Relations programs increase in value, being prepared right down the newspaper mechanical executive's alley. Maintenance of the Industrial Relations sessions at ANPA Mechanical Conferences is a certain indication that it is worthwhile for newspaper management to pay some attention to human relations within the plant.

John W. Park, Production Mgr., Chicago *Tribune*, was Chairman of the first session. He was assisted by Leo Shea, Production Mgr., San Francisco *Examiner*.

Paul C. Smith, Editor and General Mgr. of the San Francisco *Chronicle*, delivered a hearty address of welcome. Succeeding him was Clyde E. Bowen, President of the Pacific Newspaper Mechanical Conference, who extended welcoming remarks on behalf of the Pacific Coast organization.

Griner Speaks

Leslie J. Griner, Chairman of the ANPA Mechanical Committee and Production Mgr. of the Detroit *News*, in a short opening address, expressed deep concern for the necessity of mechanical executives availing themselves to the utmost of all means for offsetting production costs because of the recent price rises in newsprint. He said: "It is our duty and responsibility to continue to maintain the high standard of reproduction and quality that now exists and to help our publishers meet the burden of added costs . . . It is our responsibility to investigate and discuss all possibilities and methods of achieving reduction (in costs) in the event our respective publishers

Some of the Prominent Executives Attending ANPA Mechanical Conference —(Left to right): Vernon R. Spitaleri, Manager, ANPA Mechanical Dept., New York; Leslie J. Griner, ANPA Mechanical Committee Chairman and Production Mgr., Detroit *News*; Welcomer to San Francisco, Paul C. Smith, Editor and General Mgr., San Francisco *Chronicle*; John W. Park, Production Mgr., Chicago *Tribune*; Edwin H. Evers, Vice Pres., St. Louis *Globe-Democrat*; and Leo W. Shea, Production Mgr., San Francisco *Examiner*.

Newspaper Mechanical and Production Executives at ANPA Conference

(All names read from left to right)

1.—Ralph Cranmer, Business Mgr., Williamsport (Pa.) *Grit*; R. E. Gough, Business Mgr., New Orleans *Times-Picayune* and *States*; J. Terrance Mahan, Stereotype Supt., Akron (O.) *Beacon-Journal*.

2.—Robert Young, Secretary, and D. Phillip Young, President, York (Pa.) *Dispatch*; Gerald Hunter, Vice Pres., Matrix Contrast Corp.; Wm. A. McGuigan, Mechanical Supt., York (Pa.) *Dispatch*.

3.—Sam B. Anson, jr., Chemco Photoproducts Co.; M. M. Caldwell, Representative, Sam'l Bingham's Son Mfg. Co.; Jim Willis, Pacific Coast Mgr., Harris-Seybold Co.

4.—Willis P. Gaspard, Composing Room Foreman, Billings (Mont.) *Gazette*; Rollo Lewis, Sales Mgr., New Products Div., Beveridge Paper Co.; Earl Weiskittle, Pressroom Supt., Youngstown (O.) *Vindicator*.

5.—Frank Reilley, Lake Shore Electrotype Co.; Fred Gross, Mechanical Supt., San Francisco *Chronicle*.

6.—H. Earle Runion, Runion Production Engineers, Louisville, Ky.; Abe Kofman, Publisher, San Leandro (Calif.) *News-Observer*; O. R. Tucker, West Coast Representative, Teletypesetter Corp.

should so desire." With these and other comments, Griner set the pattern for the serious deliberations in the ensuing sessions.

The Mechanical Dept.

Vernon R. Spitaleri, ANPA Mechanical Dept. Manager, addressed the conference. He explained in detail the activities and services afforded by the ANPA Mechanical Dept. and urged executives of member papers to avail themselves of the department's services. One of his comments was to the point. It is as follows: "It is the very purpose of this conference to stimulate still more effort to improve reproduction quality . . . and to find ways and means to decrease costs yet maintaining a high degree of quality."

Palmer Hoyt Discourses Understandingly

Palmer Hoyt, Publisher of the Denver (Colo.) *Post*, talked on the subject: *The Press, the Public and You*. Referring to that part of his address dealing with the human element in the plant, he talked the language of every newspaper mechanical executive who has been frustrated by the lack of any appreciative program sponsored by management.

"It seems to me," said he, "that one of the most important ingredients to add to the broth of proper industrial relations is that of open-mindedness. Throughout the long years, one of the curses of business has been the idea that a thing can only be done in one way—the old way, and often the boss's way. This sort of thinking leads to the complete discouragement of the fresh and new ideas on the part of employees and to mistakes that can be very costly . . . One of the reasons the Denver *Post* is very happy with its new plant is that everybody was asked for their views before construction. In other words we like the working quarters. What is more important, the people that work in them like them, too, generally speaking. The views of the department heads were solicited, together with the views of their personnel. These views were adapted within the budget and everyone properly felt he had a part in planning in the final results."

"We Won't Make It with Machines Alone"

Edwin H. Evers, Vice President and Production Mgr. of the St. Louis (Mo.) *Globe-Democrat*, who has grown up entirely within a newspaper plant environment, spoke on *We Won't Make It with Machines Alone*. Evers reviewed the inception of the Industrial Relations sessions at ANPA Mechanical Conferences commencing with the 1948 meeting. It was felt that the Mechanical Conferences had greatly assisted the mechanical executive with respect to techniques, mechanics and the like. In its eagerness to improve mechanical production, the most important element of all had been overlooked in the newspaper—the men required for any advance in machines, processes and new methods.

To Be Published In Early Issue

BECAUSE of space limitations in the July issue, it was necessary to defer publication in full of several excellent addresses delivered at the ANPA Mechanical Conference in San Francisco. Due to the importance of these talks, *Printing Equipment Engineer* plans to publish them in full in an early issue. These are:

Composing Room Operation by Harold D. Winn, Mechanical Supt., Hollywood (Calif.) *Citizen-News*.

Production Economies in the Pressroom by Lester F. Crebassa, Pressroom Supt., Seattle (Wash.) *Times*.

The speaker asserted: "This problem of human relations is ours to solve—it is a primary job of those here at this Conference. Certainly, an honest approach to human understanding is far superior to futile moves of employer and employee in opposite directions . . . If we expect the man in the ranks to be interested in the success of our business we must show him that we are interested in him." He mentioned that the answer could not be found wholly in increases in wage scales, picnics, bowling tournaments and the like. They have their place, but I doubt they are the primary need of our workers."

He explained that management and supervisors can show interest in the worker by simply acknowledging that he is a human being who likes recognition when he suggests even a minor improvement, who appreciates help when he is in a jam, who likes a sympathetic ear when he talks about his everyday problems, and who reacts favorably when a foreman goes to the trouble of explaining why a certain change is being made.

"We as supervisors," he continued, "can do much for the morale of our people by just paying a little more attention to them. Many of us take our workers for granted . . . We should make ourselves easy to approach. Let it be known that suggestions are welcome. If anyone offers a suggestion, nine times out of ten he has the company's best interest at heart . . . In dealing with the human element there will be frustration as well as achievement, but persevere we must. Ideas of a completely mechanized operation are ridiculous. We won't make it with machines alone."

Second Industrial Relations Session

At the Monday afternoon Industrial Relations session which was continued from the morning meeting, W. Watson Southam, Southam Newspapers, Montreal, Can., presided. He was assisted by Glen R. Hutchinson, Production Mgr., Los Angeles *Times* and *Mirror*.

Confidential Employee Questionnaires

Paul W. Bell, Director of Personnel, Los Angeles *Times* and *Mirror*, spoke on: *Yes, Somebody Will Listen—If You Make It Worthwhile*. In this plant there are 2000 employees. He related that his company has tried three times to find out how it stands with its own people and how it rates. It found it rated highly. In 1944 and again in 1949, it conducted a confidential inquiry into employee thinking through confidential questionnaires. The company asked for, and got, criticism. Bell stated his company has just conducted a third survey, the answer to which have not been received nor analyzed as yet. The employees were invited to speak their piece, their gripes, and their praise. They did this at ease, at leisure, on company time, and were asked to say what they thought of the company, its policies and practices, and to do this without signing their names. To insure absolute protection of personal, private opinion, this inventory or audit was conducted for the company by the California Institute of Technology. Once completed, the questionnaires were put in sealed ballot boxes and were taken by Cal Tech to its own offices. No one in the company ever saw the ballots again, but the results came back as analyzed by Cal Tech.

Mr. Bell said: "Several of us on the staff got some deserved kicks in the pants. The company, too, found some policies and practices criticized.

"We made some widespread changes as a result of the good and bad points brought out by the employees. No supervisor lost his job and no supervisor lost face or standing."

In the questionnaire there were about 40 questions. In answer to a question from the floor at the conclusion of his address, Mr. Bell said that the returns from the 1949 questionnaire showed 85 per cent favorable replies. However, said he, in the instance of the present questionnaire the returns from which have not been received as yet, and taking into consideration the present unrestful times he would estimate that the favorable employee reaction would be approx. 70 per cent.

In answer to a question by Edwin H. Evers, Production Mgr. of the St. Louis *Globe-Democrat*, Bell said there appeared to be no ganging-up by employees in a department in answering questionnaires. When replies have been received and thoroughly analyzed, the results will be published in the company's house organ without varnish.

Bell remarked that out of 2000 employees only one employee did not fill in the questionnaire.

A few of the gripes revealed by the previous questionnaire were related to an employee parking lot, to and from which employees walked on a hill two blocks from the plant. Another gripe was related to the company's group insurance plan. Arrangements were made since that time so an employee could select insurance features which he preferred. Other gripes were critical of supervisors who reprimanded employees in front of fellow workmen.

The next speaker, Martin Reed, President, Mergenthaler Linotype Co., spoke on the subject *The Production Executive's Job—Opportunity or Dead End?* Mr. Reed's address appears elsewhere in this issue of *Printing Equipment Engineer*.

The Suggestion System in a Newspaper

The employee suggestion system in use in the plant of the Minneapolis (Minn.) *Star* and *Tribune*, was discussed by Production Mgr. John R. Copeland. In operation of the system, Mr. Copeland said: "1350 plant-wide minds are of terrific help to the superintendents of a half-dozen mechanical departments."

Mr. Copeland asserted that "untold thousands of dollars have been saved by us through the adoption of suggestions

(*Continued on Page 64*)

Newly Elected Officers of the Pacific Newspaper Mechanical Conference —(Left to right, front row): Secretary (Northern Div.) Ed. Conley, Pressroom Supt., San Francisco *Chronicle*; President, Al Tennyson, Composing Room Supt., Los Angeles *Times-Mirror*; Secretary (Southern Div.) Fred J. Moyer, Head Machinist, Los Angeles *Daily News*. (Back row): Vice Pres., (Northern Div.) Mervyn J. Keegan, Pressroom Supt., San Francisco *Call-Bulletin*; Immediate Past Pres., Clyde E. Bowen, Pressroom Supt., *Wall Street Journal*; Vice Pres., (Southern Div.) William Weigand, Composing Room Foreman, Glendale (Calif.) *News-Press*.

ANPA Mechanical Conference Draws 900 Executives to San Francisco

(All names read from left to right)

7.—Joseph Dorr, Capital Tool & Mfg. Co.; John J. Tuttle, Secy.-Treas., and Harold J. Achterling, Composing Room Foreman, No. Hollywood (Calif.) *Valley Times.*

8.—Craig Baker, Sta-Hi Corporation; Sam Valentine, Alhambra (Calif.) *Post-Advocate;* Glenn Hutchinson, Production Mgr., Los Angeles *Times-Mirror.*

9.—Arthur Randall, Asst. Production Mgr., Los Angeles *Times-Mirror;* Cliff Hanlen, Composing Room Fm., Phoenix (Ariz.) *Republic;* Milton E. Torrell, Production Mgr., Los Angeles *Examiner;* Al Muller, Pressroom Supt., Los Angeles *Times-Mirror.*

10.—Fred J. Moyer, Head Machinist, Los Angeles *News;* Ted Schwarz, Service, and W. J. Koetke, Sales Mgr., Vandercook & Sons, Inc.; Elmer Hostetler, Manager, Intertype's Los Angeles Agency.

11.—William Pollock, Federated Metals Div., American Smelting & Refining Co.; John J. Shea, President, Wood Newspaper Machinery Corp.; Vincent J. Ryan, Federated Metals.

12.—G. R. Dayton, Sales Mgr., Cline Electric Mfg. Co.; W. R. Coddington, Mechanical Supt., and Harry I. Prugh, Asst. Business Mgr., Des Moines (Ia.) *Register* and *Tribune.*

Column Width Reduction Methods

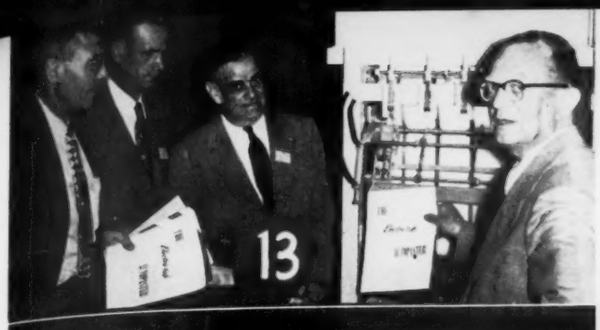
AT THE Composing Room Session of the San Francisco ANPA Mechanical Conference it developed that there was no general agreement respecting whether it was practicable to secure narrower newsprint rolls by increasing dry mat shrinkage where possible, reduce column width from 12 picas to 11.6, 11.8, 11.9 or 11.10 picas and points, or whether it would be advisable for newspapers generally to add another column to the standard 8 col. page. While all executives participating in the discussion did not agree on methods, all seemed to realize that something should be done to permit newspaper management to offset recent newsprint price increases by production economies and the use of narrower type pages. Discussion of stereotype mat shrinkage in particular came up at the advertising session on the night previous, and again at the Stereotype meeting during the afternoon of the following day (Wednesday).

During the Composing Room session, however, on motion by Business Mgr. Charles Hentschell of the St. Louis *Post-Dispatch*, executives voted unanimously to refer the entire question back to the ANPA Mechanical Committee who will prepare a presentation and pass it along to the ANPA Board of Directors. It was felt that it was not within the province of the conference to determine what would be the best course to pursue but that the ANPA itself should do the determining. It was also intended that the ANPA set up standards with respect to page sizes, column widths and the like to eliminate confusion within the industry with respect to national advertising plate areas in particular. From a personal standpoint, there was no general agreement regarding shrinkage or the establishment of narrower column widths.

The debate was touched off after delivery of a paper entitled *Column Width Reduction* by Mechanical Supt. Stephen J. Lambert of the Brooklyn *Eagle*. Mr. Lambert's paper was prepared after a sub-committee was appointed to investigate column width reduction.

Methods of Page Reduction

Mr. Lambert, in discussing the subject said in part: "In determining which of the two methods of page reduction to pursue, one must bear in mind that both treatments are not without individual problems. For example, if the setting of narrower columns is selected you can rest assured there will be some 'wide' advertisements with problems of their own. I'd like to stress here, however, that only on rare occasions in our experience, has it been necessary to reset or reproduce an advertisement to suit the new column width. Naturally, sometimes assistance from the Advertising department is required regarding the repositioning of an extremely 'wide' advertisement so that it may be shifted to an outside column. But



Camera Records Executives at ANPA's San Francisco Conference

(All names read from left to right)

13.—John F. Bennett, Pressroom Fm., Yakima (Wash.) *Republic* and *Herald*; Howard Pinnock, Stereo Fm., Portland (Ore.) *Journal*; E. A. Rehm, Engineer, and I. Tornberg, Vice Pres., Wood Newspaper Machinery Corp.

14.—Virgil Neal, Mechanical Supt., Redding (Calif.) *Record-Searchlight*; Erwin Arpe, Asst. General Mgr., The Morrison Company.

15.—Arthur Schmeichel, Production Mgr., Iowa City (Ia.) *Daily Iowan*; Harry Knoll, President, and Frank Stephan, H. B. Rouse & Co.

16.—Michael Vogt, Owner, Michael Vogt Co., Fresno, Calif.; Winston P. Nelson, Foreman, Brigham - Box Elder (Utah) *News-Journal*; Paul A. Richards, J. A. Richards Co.; Ray Lovett, General Mgr., Peninsula Newspapers, Palo Alto, Calif.

17.—Roger Perry, Sales Mgr., Printers Equipment Div., Hamilton Mfg. Co.; Walter W. Hillstrand, Mechanical Supt., Great Falls (Mont.) *Tribune*; C. M. Foss, American Type Founders, Inc.

18.—C. H. Ellsworth, Mechanical Supt., Monrovia (Calif.) *News-Post*; J. A. McQueen, Stereo Fm., and Ray Aue, Pressroom Fm., Spokane (Wash.) *Spokesman-Review*.

by no means is this a daily occurrence and it need not be considered a serious obstacle in deciding to employ the 11-8 or 11-9 pica column width.

"To those who believe that high shrinkage is the proper method of meeting this problem, let me say that several papers are successfully printing a quality job with shrinkage as high as 5/8" to 1 1/8". On the other hand, in my discussions with numerous mechanical men in the East I have repeatedly heard it stated that their department troubles have increased tremendously since the adoption of the high shrinkage mat. The latter group claim that a lack of uniformity in the mat cannot be dismissed. The blistering, peeling or pulling appears to give them their greatest trouble. I am confident, however, that the mat industry will slowly but surely eliminate all these rough spots."

Lambert explained that in May 1947 the Brooklyn *Eagle* was changed from a 12 pica column to one of 11.8. He reported that the greatest trouble encountered was in handling the single and double columns of national advertisers.

"To the credit of the ANPA and AAAA Joint Committee on Newspaper Printing," he continued, "a proposal was made which greatly reduced the cutting and trimming of many of the single and double column ads. "He quoted from Report No. 2 as follows:

"Since some newspapers have revised their column widths to a measure narrower than 12 pica ems, it is important that all agency people and advertisers make sure their material is properly sized. A single-column advertisement scheduled to appear in a list of newspapers should not exceed 1 5/6 in. in width. For advertisement of more than one column, the first column should be 1 5/6 in., with additional columns 2 in. in width. Thus a two-column advertisement should not exceed 3 5/6 in., a three column advertisement 5 5/6 in., etc. Unless your material is properly sized some newspapers may be forced to make one or more additional stereo casts in order to shrink your advertisement so as to fit it into the page forms. Such shrinking is likely to affect the reproduction of your halftone illustrations and small type."

Mr. Lambert next said: "Untold confusion is bound to develop if agencies adopt a policy which results in advertisements being furnished on the basis of 11.8 or 11.9. Until such time as there is complete acceptance of 11.6, as the new standard measure, it is the opinion of many that they should continue with the 12 pica measurement.

"Frankly, we have made a great deal of progress on the subject in recent months. There still remains, however, considerable work to be done before all agencies throughout the country have a complete understanding of the subject. This educational job will take time because it's quite possible that many just won't accept a narrow column change without offering some strong oppositon."

Column Width Preferences

In the course of Mr. Lambert's address it was evident that there is no agreement

with respect to preferences for a given column width were the width to be changed nationally. Perhaps the reason for this disagreement lies in just personal preference without taking too many details into account. Expression of opinion was obtained by sending out 50 questionnaires, to which 36 replied. Of those replying, 17 favored 11 pica 6 pt. column measure; 9 did't like reducing column width, 3 would reduce to 11.10 picas, and 7 would reduce to 11.9 picas. With respect to column rule, 15 favored the 3 pt. rule, while four favored the 4 pt. column rule, and five favored the 6 pt. column rule, while 11 of the original 35 papers expressed no preference.

Lambert quoted from a proposal made by R. W. Tranter, Mechanical Supt. of the Boston *Herald Traveler*, as follows:

" 'My idea is that if we run a 9 instead of an 8-col. page and maintain a standard column dimension of approximately the size in general use at present, we would then have available the same number of columns in a 64 page paper that now require 72 pages. In other words, there are 512 columns in a 64 page paper on an 8 column page basis, and there are 576 columns in a 64 page paper on a 9 column basis.

" 'Carried further, we could also get in 32 pages (using a 9 column page) the same number of columns that now occupies a 36 page paper. Increasing a paper from 32 to 36 pages means a jump in the number of press units and therefore an increase in the number of men used in our particular case, an increase of two men per press for 10 presses.

" 'Wider rolls of newsprint would be required, of course, than now in general use. On the basis of 1 in. stereotype shrinkage a 70 in. roll would be required. But we now use a 64 in. roll for 4 pages or 32 columns, whereas the 9 column page would give us 36 columns across a 70 in. web.

" 'If this idea could be standardized throughout the industry I think that many cities would gain considerable advantage in their press manning tables.

" 'There are, of course, some disadvantages insofar as the local advertisers are concerned. Much of the advertising today is released on an 8 column rather than a full-page basis, so that there might be some explanations necessary on the part of newspapers adopting this system unless it were universal. It would certainly have to be universal in any town with several competitive newspapers.' "

Disagreement from Other Executives

In the discussion following Mr. Lambert's address, various statements were made, some of which are mentioned below. It should be stated that all of these opinions were made as the speaker saw conditions at the moment.

Leon A. Link, Production Mgr., Cleveland *Plain Dealer*, prefers reduction in column width rather than increased mat shrinkage. Newspapers should standardize column widths to avoid confusing advertisers regarding various reductions.

Composing Room Supt. Al Tennyson, Los Angeles *Times Mirror*, reported he had made a study of 11.9 and 11.6 column widths. Out of 281 advertisements all but 38 would have fitted into the 11.6 column width. Some agencies are now using white space. In his opinion, white space never hurt anyone. He is in favor of the 11.6 column.

Production Mgr. Fred Gross of the San Francisco *Chronicle* said his paper uses the 11.10 column with no trouble.

S. P. Cromie of the Vancouver (Can.) *Sun* reported his paper employs the 11.10 column but is willing to go to 11.6.

Production Mgr. John Park, Chicago *Tribune*, said he is one of those, who if the paper size is reduced, the column width should be reduced. However, he stated the real problems are in the pressroom and asked for discussion from the pressroom standpoint.

Harold Mintun, Production Mgr. of the Pittsburgh (Pa.) *Press*, remarked that most newspapers are using 72 in. presses. However, if papers go from 8 to 9 col. page there would be a considerable annual saving. He feels keenly that the confusion in handling national advertising is a bad condition. Personally, he favors 11.6 column.

George Woodman, Mechanical Supt. of the Fort Worth (Tex.) *Star-Telegram*, discussed the changeover on old and new press equipment. The *Star-Telegram* is operating new presses. On new presses the problems are different. He reported that his paper is now on 63¾ in. paper and thinks there would be no great trouble in changing to an 11.9 column width. On his presses he could go to about 66 in. web width. His plant is using 11/16 in. stereotype mat shrinkage.

ANPA Exhibits Successful

A total of 43 companies participated in the exhibit of newspaper equipment and supplies at the ANPA Mechanical Conference held at the Fairmont Hotel, San Francisco, June 9, 10 and 11. The exhibitors occupied 67 spaces located in the Fairmont's Nob Hill, Gold and Empire Rooms. The display marked the first time much of the equipment had been shown on the West Coast for benefit of newspaper mechanical and production executives in that part of the country.

The exhibiting firms are as follows:

Alico, Incorporated
American Type Founders, Inc.
Armes & Spillers Distributing Co.
Atlantic Zinc Works, Inc.
Russell Ernest Baum
Harry W. Brintnall Co.
California Ink Co., Inc.
Capital Tool & Mfg. Co.
Chemco Photoproducts Co., Inc.
Consolidated Photoengravers & Lithographers Equipment Co.
Eastern Newspaper Supply, Inc.
Fairchild Camera & Instrument Corp.
Federated Metals Div., American Smelting and Refining Co.
Arthur H. Gaebel, Inc.
General Electric Co.
Hamilton Mfg. Co.
Hammond Machinery Builders, Inc.
Imperial Type Metal Co.
International Newspaper Supply Corp.
C. M. Kemp Mfg. Co.
Lake Shore Electrotype Co.
Linotape Products Co.
Linotype Parts Co., Inc.
Ludlow Typograph Co.
Matrix Contrast Corp.
Monomelt Company, Inc.
Morrison Company
Nolan Corporation
O. H. Olson
Precision Engraving Co.
Printing Equipment Engineer
Printing Machinery Service Co.
J. A. Richards Co.
H. B. Rouse & Co.
Shaw Machine & Tool Co.
Signode Steel Strapping Co.
Sta-Hi Corporation
Steward Company
Strong Electric Corp.
Teletypesetter Corporation
Tingue, Brown & Co.
Vandercook & Sons, Inc.
Wood Newspaper Machinery Corp.

East and West TTS Operation

AS PART of the Composing Room session, of the ANPA San Francisco Mechanical Conference, over which Production Mgr. A. F. Stanley of the Los Angeles *News*, presided, three speakers discussed Teletypesetter operation in their plants. The first speaker was Composing Room Foreman W. D. Weigand of the Glendale (Calif.) *News-Press*. His is one of a group of Southern California Associated Newspapers consisting of seven papers. The circuit became the pilot operation for the Associated Press Teletypesetter circuit in Southern California on January 31 this year. After having experienced some difficulties, the operation has been smoothed out. Mr. Weigand said that when the AP took over the circuit and started sending its complete report on perforated tape, we were sending as much as 3825 lines over the circuit in 8 hrs. He explained that the standard of competency for a journeyman perforator operator was set at 375 lines per hr.

Metropolitan Paper's Problems

Al Tennyson, Composing Room Supt. of the Los Angeles *Times* and *Mirror*, discussed operation of the Teletypesetter in his plant.

Tennyson feels that the subject of Teletypesetter operation requires individual treatment "at least as it applies to the three district groups of newspapers in this country. These are the small, medium and large groups. It is, of course, in the medium class that TTS has found great acceptance. In the other two, very little . . ."

It seemed that Tennyson was sincere in his remarks when he asked for the answers to a number of problems attending operation of TTS equipment in his particular metropolitan newspaper composing room. Continuing, he said:

"I cannot just dismiss the statements of successful giants of the industry who have explored the field on this subject thoroughly. Why would the late Bernie Garrity write that TTS is the best *substitute* for 'operators' he had yet discovered, if he did not believe it with all his heart? Why would another prominent and successful publisher write that he had exhausted every phase of TTS in his triple operation and found no merit in it, and that he is unable to understand why all the hysteria on the subject, if he did not believe such to be true? Why would another publisher try for 14 years to fit it into his operation and give it up and pack it away for use in extreme emergency, if his experience with it had been profitable?

"When we find these answers we will have learned much. To that end it is my

opinion that my publisher as well as the industry is entitled to know certain facts herein attempted. Yes, I want my publisher to know, that at a time when the world is clamoring for greater speed the instruments of the circuit phase of this process brings his news into his office 12% slower than formerly. That he was getting 60 words per minute but now via TTS he only gets 53. I want him to know that the men he is paying to edit his paper are no longer doing so. They have been displaced by a disinterested party and his editor is now a writer of heads and subheads. His paper is in danger of becoming an instrument to hasten the day of regimentation . . ."

Mr. Tennyson enumerated a number of critical problems which seemed to have been suggested by a minute study of all the operations involved in TTS operation. He feels that acceptance in one field (medium size newspapers) does not necessarily imply that the industry can be blanketed with it just because the end result is type slugs. In one of his concluding statements, Mr. Tennyson urged the pursuit of mutual exchange of information on man-hours per page in order that an intelligent appraisal can be made of comparable operations. Since Mr. Tennyson has opened up the subject, no doubt this information will be established and made available before too long a time.

Reasons for TTS Installation

The experience of the Boston *Herald Traveler* was told by Mechanical Supt. R. W. Tranter. He related that the *Herald Traveler* began experimental operation in September 1951. The installation consisted of three Comets, with reperforators and five perforating machines and transmitters. It was decided to keep the perforating operation separate from the composing room in order to provide a sound-proofed room where there would be as little distraction as possible. He also told about the training periods for tape perforating operators and some of the minor troubles which later were smoothed out. He said it was soon learned that one of the most important requisites for a successful operation is to make sure that plenty of copy is available at all times. Standard of competency with the ITU which went into effect the first week in May 1952 calls for 340 lines per hr. at the end of the training period for each operator. In addition . . . we use an average of 13 columns of Associated Press wire tape per day per paper, figured on a weekly basis comprising 13 issues.

Mr. Tranter's concluding remarks were: "In my opinion the reasoning behind the use of Teletypesetter is quite logical. Let us assume that an operator sets 1650 lines in $7\frac{1}{2}$ hours. This means that a linecasting machine geared to run at $6\frac{1}{3}$ lines a minute and therefore capable of producing 2850 lines in a $7\frac{1}{2}$ hour continuous operation, is only operating at capacity 5 hours out of the $7\frac{1}{2}$. I am fully aware of all the operators problems such as distributor stops, hand spacing etc., but I am also aware that if the manual operation of setting type was

Among Those Attending ANPA Conference in San Francisco

(All names read from left to right)

19.—Emil Bendow, Sales Mgr., and V. J. Andreacci, Linotype Parts Co.; Ed. Maggi, Machinist, Phillips & Van Orden, San Francisco.

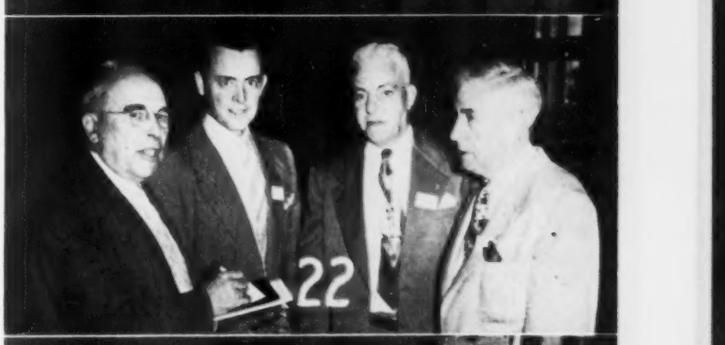
20.—Edgar A. Mills, jr., President, Eastern Newspaper Supply Co., Inc.; C. L. Buttermore, Mechanical Supt., Cleveland *News*; Joseph Lane, New York (N. Y.) *Times*.

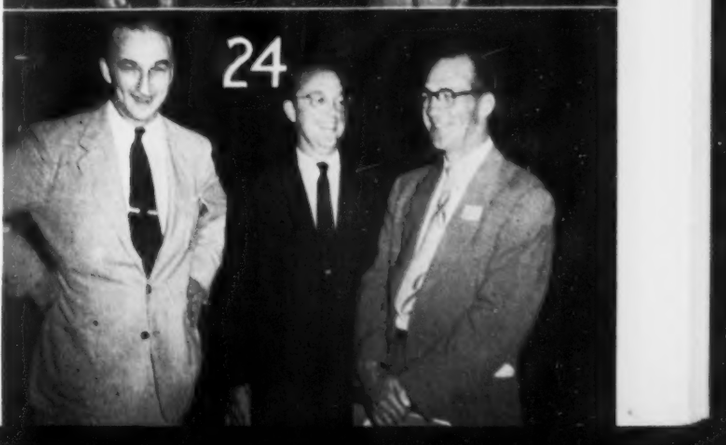
21.—L. W. Walstead, Production Mgr., Longview (Calif.) *News*; H. H. Honeysett, Mechanical Supt., Wenatchee (Wash.) *World*; J. E. Wells, Supt., Eugene (Ore.) *Register-Guard*; H. Pickney, Stereo-Press Fm., Victoria (B. C.) *Press*; D. V. Belleisle, Superintendent Coos Bay (Ore.) *Times*.

22.—Gilbert H. Higgins, R. Hoe & Co.; Roy Sites, Mailing Room, Paul O. Brannon, Pressroom Supt. and W. F. Alexander, Photoengraving Supt., Cleveland *Press*.

23.—Russell R. Cranmer, Business Mgr., Williamsport (Pa.) *Grit*; William Baumrucker, Production Mgr., Washington (D. C.) *Times-Herald*; Roy Prince, ANPA Lab, Easton, Pa.; C. M. Flint, Research Director, ANPA, New York; Jack Landau, Lake Erie Engineering Corp.; Magnus Smith, Stereotype Fm., Long Beach, (Calif.) *Press-Telegram*.

24.—Charles J. Hentschell, Business Mgr., and Alex Primm, Production Mgr., St. Louis (Mo.) *Post-Dispatch*; Rollo Lewis, Sales Mgr., Beveridge Paper Co.





confined solely to keyboard operation the time lost on machine production would be considerably less. Obviously then, keyboarding should be a separate operation to be thoroughly efficient, and that is exactly what a Teletypesetter does. It separates the keyboard operation and converts it into perforated tape from which the linecasting machine can be run continuously. Furthermore, this permits the machines to run at a 50% increase in speed.

"It is not my opinion that Teletypesetter operation is a panacea for all the problems that exist in the production of a newspaper page in the Composing room, and it would be foolish for anyone to believe that as soon as Teletypesetter equipment is installed that the production of news type becomes a push-button operation. Such innovations are exceedingly rare in the newspaper industry in any mechanical department. I am, however, firmly convinced that greater machine productivity can be obtained by the proper use and application of Teletypesetter equipment."

In conclusion, Mr. Tranter stated that before the end of the month (June 1952) the *Herald Traveler* would augment Teletypesetter operation with two Intertype C-3 machines converted to high-speed Teletypesetter operation, plus an additional battery of five perforators.

Newspaper Advertising Production

THE Advertising session of the ANPA Mechanical meeting was one of the most provocative of the entire mechanical conference. The meeting was scheduled to be held commencing at 8 o'clock but it wasn't adjourned until after 12:30 o'clock the next morning because of spirited differences of opinion between advertising agency executives and newspaper mechanical executives regarding the quality of national advertising reproduction.

At this session, Production Mgr. Joseph E. McMullen of the Milwaukee (Wis.) *Journal*, and Ernest G. Hedlund, Engraving Supt. of the Klamath Falls (Ore.) *Herald* and *News*, presided as chairmen.

The first speaker, George B. Dearnley, Vice Pres. of McCann Erickson, Inc., New York, N. Y. precipitated a red hot discussion when he made some statements preliminary to his assigned subject regarding a report on the ANPA-AAAA Joint Committee on printing regarding gravure standards which are now being worked upon by the committee. The remarks preliminary to his discussion of the Joint Committee were related to complaints made by national advertisers. The advertiser said he is greatly disturbed by the distortion in newspaper advertising production and the poor quality of printing.

Standardized Gravure Colors

Dearnley reported on the Joint committee's work in attempting to standardize rotogravure color inks. He exhibited a considerable number of color swatches collected from a number of gravure plants who were asked to reproduce the same subject in red, blue and yellow printings. The specimens showed tremendous variations.

It was plainly evident that a great deal of work is yet to be done before the Joint committee will be able to publish a report showing specimens of standardized gravure colors. The specimens exhibited, he said, constituted an interim report. It is the intention of the committee to print samples of colors on 32 or 34 lb. newsprint. In turn, these will be sent to gravure printing plants with a request for expression of first, second and third choices of the different shades of each color—blue, red and yellow. After these have been returned, the sub-committee will make a decision based upon the choices received. In turn, the sub-committee report will be submitted to the General committee, after which the committee will publish the selections as recommended standards.

Ben Dalgin, Director of Art and Reproduction, New York (N. Y.) *Times*, reviewed the work of the ANPA-AAAA Joint committee since it has been in existence. He then explained that the Joint committee is working on a fifth report dealing with color rotogravure. He announced that the committee has been divided into four sub-committees, each of which is making a detailed study of a specific phase. The subjects being studied are: (1) Preparation of art work, (2) Positives, (3) Plant operations, and (4) Material. The first report on copy preparation may be ready for distribution before the year ends. It has been prepared with the cooperation of rotogravure publishers, engravers and printers.

Dalgin's NIX-O-Print

As a pleasant interlude, Mr. Dalgin presented a demonstration of his NIX-O-Printing Process. Together with sleight of hand and running commentary, together with the use of atomic powder, he produced a halftone engraving in short order, afterwards reproducing the same halftone portrait of a man in a front page copy of the New York *Times*. Immediately afterwards he demonstrated how a paper is torn to shreds by a strap hanger who attempts to read his paper on the subway car while going to and from work. By the magic of the NIX-O-Print method, the paper was restored to a whole condition.

Paul O. Brannon, Pressroom Supt., the Cleveland *Press*, read an excellent paper on *Rop Colors in Newspapers*. In this paper, Mr. Brennon presented some observations regarding the advisability of the advertiser preparing his plates of a quality suitable for the newspaper printing process. He explained in detail how

(*Continued on Page 62*)

ROP Color Approach

ONE of the most instructive and enlightening papers to be delivered at the ANPA Mechanical Conference was that of Homer Green, General Mgr., Wilson Engraving Co., Dallas, Tex. It was entitled *How To Prepare Art for One Approach to ROP Color*. The address was sponsored by The Dallas (Tex.) *Morning News* with the cooperation of the American Photo Engravers Assoc. Primarily, the examples shown by Mr. Green with Kodaslides (in color) were executed by the artist in separated art with direct screen separation and continuous tone negatives and positives.

Sponsors were of the opinion when the method was started some time ago that by reproducing from the separated art method and using mixed ink many advantages from the standpoint of the advertiser and the newspaper production staff would accrue.

Separated Art Method

Separated art, Mr. Green explained, means that the artist makes a separate drawing of each color to be used. "Results of this type of reproduction," said he, "depends upon the ability of the pressman to mix inks to match the color of the merchandise or whatever samples are supplied." In the case of the drawing of the figure of a man, the drawing is made in black ink. The drawing for the light brown coat which represents the light brown plate is drawn also in black ink on a transparency sheet laid over the original drawing. Register marks are drawn in on each sheet of art. Thus the copy is supplied from which the engraver makes a zinc etching of the black art and a zinc etching of the copy (coat in this instance) of the brown separated art.

By means of the projected slides, Mr. Green showed many examples of department store color advertising. He also exhibited many tear sheets from newspapers showing different examples of r.o.p. color advertising suited to the requirements of the newspaper printing process.

Too Much Color

He warned his listeners: "Often, too much color is used in an ad. Solid backgrounds do not print well. Large areas in color are not especially pleasing and sometimes smear and offset on the adjoining page." He said that color ads are reproduced on a 75 line screen and are etched to a depth of 0.0055 in. in the highlights. The 20 in. by 24 in. angle screens are used in a standard size camera and are changed to proper angle with each exposure.

The Production Executive's Job

MARTIN REED, President of Mergenthaler Linotype Co., addressed the ANPA Mechanical Conference on *The Production Executive's Job—Opportunity on Dead End?* In his introductory statements he said that as an equipment manufacturer he felt like the humming bird who was invited to attend a convention of hawks. He said he would like to pitch his remarks on a gay and happy note. Unfortunately, wherever one turns in a discussion with production executives, he runs into that old devil—Costs.

With respect to the newspaper printing industry he said no industry can live and progress on its own knowledge and experience alone.

Continuing, he said: "There are tremendous reservoirs of management, production, personnel and industrial relations knowledge and experience in other manufacturing industries which must be tapped by newspapers if they are to succeed in their struggle with throttling costs."

"Management, including production management, is no longer a hit-or-miss vocation. It has become a profession practiced scientifically by professionals.

"Some of you practice scientific management consciously and deliberately. Others of you use daily some or many of the techniques of scientific management.

"You may be asking yourselves how the things I have been saying apply to the newspaper production executive who all too often is not at a broad policy making level in his organization. Let me see if I can provide you with a satisfactory answer.

Scientific Management

"Basically, scientific management should have as its foundation a master management plan with company-wide policies and procedures designed to make the over-all plan effective. It proceeds from a sound annual sales forecast from which total income figures can be derived. Then, as a matter of policy, there is fixed the profit that the owners of the business demand be earned on those sales. Many factors, including total investment and the reinvestment of profit, must be considered in fixing the annual profit target. By policy the anticipated profit figure may vary from year to year depending upon changing conditions, both external and internal. Once established, however, that figure becomes the minimum profit goal for the succeeding year.

"With anticipated income and profit established, there are then prepared operating and other budgets which, with competent supervision and sound management techniques, will insure the earning of the established profit margin in the absence of abnormal conditions. To guarantee flexibility, the sales forecast can be reviewed, either on a quarterly or a semi-annual basis, and the operating budgets recast to fit changes in anticipated income. As top management becomes more at home in this type of operation and as sales forecasts become increasingly more reliable, interim budget fluctuations will be less radical. Violent and frequently changes in operating budgets make for an operation that proceeds from crisis to crisis. They are necessarily wasteful and costly because they minimize the effectiveness of sound planning.

"The fact that an enterprise as a whole lacks this type of a master plan for the over-all control of its operations need not be a deterrent to the adoption of its applicable portions by any branch of that enterprise. So, you, as production executives, starting with an end figure within which you can budget your expenditures over the period of a year, can adopt the management controls and techniques now available to assist you in the efficient operation of the production divisions of your business.

"It would be impossible to discuss with you here today the innumerable techniques and practices which make up the tools of scientific management. Each has been evolved by a painstaking trial and error process in other industries, and each is a separate study, in itself. For example, at these sessions since 1949 you have heard six formal talks relating to foreman training and two on suggestion systems, although foreman training and suggestion systems are only two of the scores of tools used by modern management to achieve efficient operations.

Guts of Scientific Management on Production Side

"However, in an effort to come to grips with specifics, I have attempted to group the most commonly used and practical production management techniques into five general categories. They are:

"1. *The Organization, Job Evaluation and Wage Rate Techniques*—these have to do with the definition and streamlining of organization; the description and classification of jobs; the evaluation of job content and the fixing, by negotiation or otherwise, of a scale of rates or rate ranges which recognizes relative job values; the establishment and maintenance of a merit rating system upon which individual wage increases can be based; the establishment of standards for promotion.

"2. *The Recruiting, Testing and Training Techniques*—these include the establishment of a method for constantly appraising present and future personnel needs, including executive personnel requirements; the recruitment and testing of new personnel to fill defined needs; the selection, testing and training of candidates for supervisory positions; programs for the evaluation, education and continuing training of existing supervision at all levels.

"3. *The Communications Techniques*—these cover all the means of communicating information, knowledge, planning, suggestions and complaints both upwards and downwards within the organization, including informational booklets and bulletins, executive letters, house organs, conferences, suggestion systems, organizational manuals, departmental meetings, policy manuals and procedural manuals.

"4. *The Engineering Techniques*—these have to do with the technical aspects of production management, including methodizing, production control, machine loading, dispatching and routing systems, systems for determining the economic justification for capital equipment replacement and expansion, safety programs, scrap and spoilage controls, appraisals of the efficiency of existing equipment and engineering analyses of the needs for completely new types of equipment, and the establishment of work performance standards or incentives (group or individual) based upon time and motion studies.

"5. *The Budget, Cost and Control Techniques*—these include the initiation and administration of departmental budgets; the installation and maintenance of a reliable cost accounting system; the streamlining of forms, reports and procedures; a system for following up the results of cost analyses; a system of planned reports for executive information, guidance and control; and the establishment of statistical controls and performance standards for supervision at all levels.

Trained Consultants Useful

"You cannot hope to encompass all of these management practices quickly or easily . . . Management has become a science and the practice of management a profession. Even after you have gained the required basic knowledge it will be necessary for you to continue your studies thereafter and to remain in constant touch with developments.

"The quickest, easiest and perhaps the best way to introduce modern management techniques into a business is through the use of outside engineering firms. In this country there are scores of reliable firms of the highest ethical standards and competency.

"However, no outside consulting services will be effective unless the project has the wholehearted support of top management and the full cooperation of the line executives. New techniques . . . must be modified to fit the nature of the existing business and its peculiar operating conditions.

"It has always been interesting and indicative to me that while the lists of

participants at management conferences and courses invariably include executives from companies as different in size and function as General Motors and a small baking company, it is the rare list, indeed, that includes a newspaper executive. It is incomprehensible why almost every industry in American feels that its executives should attend such sessions in order to maintain and improve their professional efficiency—*except* the newspaper industry.

"The anomaly of the situation is that publishers, without exception, are cost conscious and anxious for help—particularly from within their own organizations. At the moment, however, they are floundering and faltering. If ever production executives had a golden opportunity to sell to their employers constructive and progressive programs, they have it now. Having conceived and sponsored such programs you can guide and lead them for the best interests of your organizations. It might be said that this is not just an opportunity—it is a duty which you are paid to discharge."

Changes Inevitable

"I am convinced that you, as production executives, will soon have to assume more leadership in proposing and actively sponsoring policy and method changes within your organizations. It seems inevitable that unless you do, those changes will be forced upon you. Should that happen you may find that your experience and knowledge will have much less weight than they should in the adoption of the new techniques. The day does not seem too far distant when publishers are going to say to you, 'You will have X dollars for all production activities next year. Either produce within that figure or let me have your resignation.' Many publishers, facing impossible cost situations, will have no alternative. If you are prepared at that time with every available management tool for controlling and reducing costs, you may find that the attributes of energy and a desire to succeed are not alone enough to insure your success.

"Consciously or unconsciously you have been moving towards a new and different concept of management. Your discussions at these Mechanical Conventions have turned to more challenging and rewarding topics. You have begun to put behind you the era when you spent days discussing ink mists in pressrooms, how space bands should fall, whether cust should be based 0.921 in. or 0.922 in., the fire hazard presented by synthetic rollers, and whether presses should be packed with two or three piece combinations. Those are important technical matters; but they are probably better suited to outside private investigations than to detailed attention at a full convention. Many of your discussions had become so limited in scope that you were beginning to commit what has been described as industrial incest.

"Time is pressing at your heels. You have a wonderful opportunity to lead a movement which will inevitably gain momentum in the newspaper printing industry. If you do not seize that opportunity, then your jobs will be dead-end—and I use the term quite literally."

Adds Goss Presses

The $2 million expansion and modernization program at the Detroit *Free Press*, announced recently by John S. Knight, Editor and Publisher, will include the addition of 12 Goss Headliner press units and the installation of new stereotyping equipment. Already under way are the revamping and enlargement of the *Free Press*' newsroom and alterations in the mailing room. The new Goss units with Tension Lock-up will include three folders, extra balloon formers and color facilities. When placed in operation, the paper will have a total of 33 Goss units with nine folders. Additional press units are planned to provide four-color printing throughout the paper. Henry Lentz is Mechanical Supt. at the *Free Press*.

GPO Production Figures

A representative of the Government Printing Office at a recent meeting of the Commercial Printing and Lithographing Industry Advisory Committee with the National Production Authority, stated that fiscal 1953 printing production by GPO is expected to amount to $112 million of which about $52 million will be handled by commercial printing concerns. The spokesman said printing production for Fiscal 1951 totalled $98 million and for the current fiscal year is expected to amount to about $102 million.

In New Plant

Officials of Pope & Gray, Inc., are celebrating the company's twenty-fifth anniversary. The firm has been moved into a new plant especially suited for the manufacture of printing ink and ink products. The new plant is located at Industrial West, Allwood, Clifton, N. J. The one-story building covers one acre on a four acre plot and contains offices, laboratory, ink department and varnish plant.

The firm of Pope & Gray has specialized in overprint varnish, gloss ink and metallic inks and has been active in development of newer types of lithographic inks for both sheet fed and web presses.

Chester H. Pope, President and founder, has been active in the Graphic Arts field since starting as a chemist with Forbes Lithograph Mfg. Co. in 1910. Vice President Wm. Gerard Tatlock has been with Pope & Gray, Inc., for 22 years. Treasurer J. Howard Houston who came into the company after the death of G. Dwight Gray in 1945, was previously employed as general manager of Eagle Printing Ink Co., Div. of Sun Chemical Corp.

Houston Group Elects

At the annual meeting of the Union Employers Section, Houston (Tex.) Graphic Arts Assoc., Inc., held recently, the following officers and directors were elected: President, Herbert C. May, jr., H. C. May Co.; Vice President, Paul Schnitzen, Maverick-Clarke; and Treasurer, Paul McCain, Paul McCain Typographer. Directors to serve one year are Max Kaplan, Carmax Corporation, and O. T. Pillow, Pillow Bros. & Fulshear. Directors to serve two years are O. B. Granum, Granum & Co., and A. V. Emmott, A. V. Emmott Bookbinding Co. The secretary of the section, who also will be Executive Secretary of the Houston Association, is O. K. Eden.

Goes Litho Expansion

Goes Lithographing Co., Chicago, has purchased a four story brick structure located at 6320 S. Harvard Ave. in that city, in a move to consolidate production and warehousing facilities. It is reported the 40 thousand sq. ft. in the Harvard Ave. plant boosts the total production capacity of the Goes firm to more than 110 thousand sq. ft. Officers of the firm are as follows: Arthur A. Goes, President; Charles B. Goes, jr., Vice Pres. and Treasurer; George W. Goes, Secretary; and Charles B. Goes III, General Mgr.

Awarded Certificate

On May 13, at a luncheon at the Waldorf-Astoria, New York, N. Y., sponsored by the One Hundred Year Association and Department of Commerce, City of New York, a certificate of business merit was awarded to Geo. H. Morrill Co., Div. of Sun Chemical Corp. The honor is in recognition of Morrill's contribution to the economic welfare of the people of New York, N. Y., and for playing a vital role in the commercial development of that city for more than 100 years.

Another Keller Warehouse

Opening of another office and warehouse has been announced by George R. Keller, Inc., general suppliers to the Graphic Arts. The new branch will be located in Charlotte, N. C., at 208 W. Griffith St. About 2400 sq. ft. of space will be used. President George R. Keller will make his headquarters at the new Charlotte branch, dividing his time among Charlotte and the Washington and Baltimore operations. Equipment and supplies will be carried for letterpress and offset printers, newspapers, binderies, trade composition plants, photoengravers, box plants and others. A housewarming was held at the Charlotte warehouse on June 20 and 21.

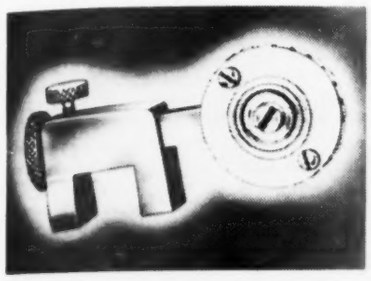
Many of our production executive readers will respond to your Position Wanted Ad in the Classified Section of *Printing Equipment Engineer*. Rates on p. 71.

Equipment & Supplies

If you wish additional information concerning equipment, supplies and/or technical literature, please make your request to PRINTING EQUIPMENT *Engineer*, 1276 West Third St., Cleveland 13, Ohio.

Bandless Perforator

THE Model LG Bandless Perforator has been announced by Preferred Pressroom Products Co. This model is designed for use on the ATF Little Giant Models 4, 5 and 6 and the Banthin Presses. This device perforates, slits or scores while the press is printing. The



cutting blade works directly against the cylinder packing. Sponsor states blades are made of precision ground hardened steel and may be changed quickly without taking the wheel from the perforator. The blade is positioned between circular abutment disks which clamp the printed sheet against the cylinder packing and limits the extent of penetration by the blade.

Perforating blades are available as follows: 1, 2, 3, 4, 6, 8, and 12 slots per in.; the 1, 2, 3, and 4 slots are for snapout forms, and the 8 and 12 slots are for folding and tearing perforations. Blades for perforating close to the edge of the sheet or for perforating heavier card or cover stocks also are available. Standard equipment with each device is one 8-to-the-in. perforating blade, one slitting blade and one scoring blade. Impression of the blade is obtained by knurled thumbscrew. Further information and bulletin available. Please mention PEE No. 365 in your request.

Direct-Image Paper Offset Plate

A DIRECT-IMAGE paper plate, developed for offset printing presses, has been announced by the American Stencil Mfg. Co. Called the Sure-Rite Direct Image Plate, it is claimed to eliminate scumming-up, if the plate is used as directed, and to have dimensional stability. Sponsor states each plate has been pre-tested to produced results desired on the first plate. Sure-Rite plates are available in three types for short, medium or long runs. Further details are available by addressing your request to *Printing Equipment Engineer* and mentioning PEE No. 359.

Newspaper Supply Catalog

A VARIETY of equipment and supplies for composing room, pressroom, photoengraving and stereotype departments are included in the 48 page 1952 catalog issued by Eastern Newspaper Supply, Inc. Contents of the catalog consist of brief descriptions, illustrations and specifications of the equipment. Eastern Newspaper Supply represents such companies as Sta-Hi Corporation, American Steel Chase Co., Challenge Machinery Co., R. Hoe & Co., Inc., Minnesota Mining & Mfg. Co., The Morrison Co., John Royle & Sons, H. B. Rouse & Co., Tingue, Brown & Co., and Wesel Mfg. Co. A copy of the catalog is available by mentioning PEE No. 370 in your request.

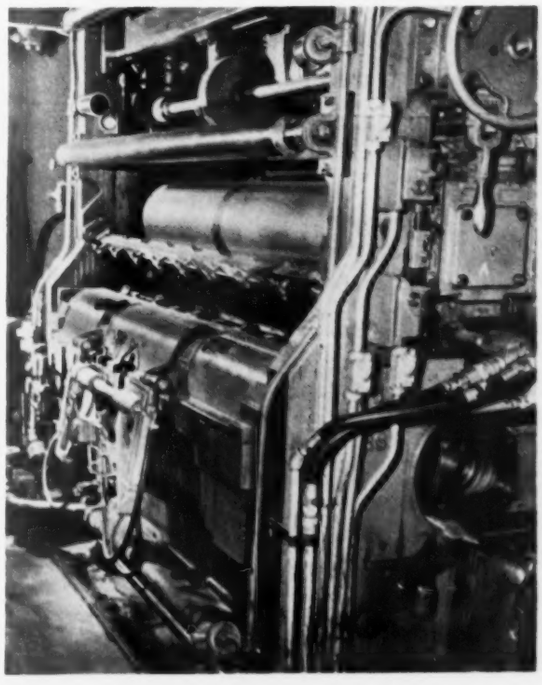
Alaco Vacuum Cleaner

THE Alaco Commercial Vacuum Cleaner has been announced by The Ace Co. This equipment is intended for floor service and there is an attachment, states sponsor, for every cleaning need. This equipment is described as be-

View of Alaco Commercial Vacuum Cleaner, sponsored by The Ace Co. Will handle both liquids and dry materials.

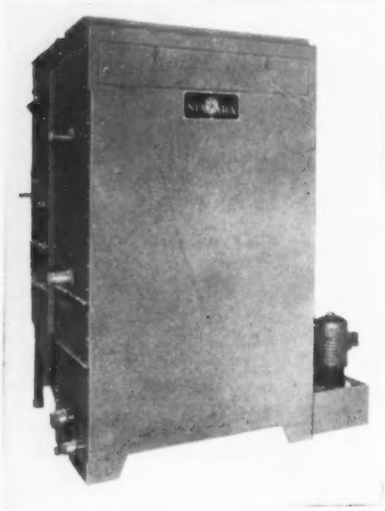
ing furnished with a powerful multistage fan that produces sufficient suction to pick up anything that will pass through the hose, including water and other liquids. The cleaner is 30 in. high and is mounted on swivel casters. The motor is 1 h.p. universal type, 110 to 120 v., 0 to 60 cy., mounted in sealed ball bearings, continuous duty. The filter is easily removed; capacity is 10 gal., or 1¾ bu. The container may be emptied by removing cover. Weight of machine is 39 lbs. Furnished with 35 ft. of UL approved cord and plug. If you would like to have further information, please mention PEE No. 379 in your request.

Multijet Carbon Dioxide Press Unit Fire Extinguishers—Each side of each rotogravure press unit at the Denver (Colo.) *Post* has been equipped with four Multijet nozzles (visible in picture — two at top and two at bottom of press unit) for discharging carbon dioxide in case of fire. Also, at each side is a temperature-rate-of-rise fire detector. If fire flashes in the volatile inks, the detector automatically trips cylinders of carbon dioxide. The tripped cylinders permit the chemical to flood through piping under its own pressure. The chemical is discharged into and about the press units in sufficient quantity to reduce oxygen in the area to a point where it will not support combustion. Sponsor states the system also can be actuated manually. Manufacturer states carbon dioxide cannot harm press equipment and electrical controls and leaves no mess to be cleaned up following a blaze. The *Post's* ink mixing room also is fitted with carbon dioxide fire extinguishing equipment. In this department, the ceiling is supplied with temperature-rate-of-rise fire detectors and Multijet nozzles from which the carbon dioxide is discharged. Also provided are a number of Kidde portable extinguishers. Please mention PEE No. 380 when requesting further information about carbon dioxide extinguishers for all mechanical department installations.



Niagara Blower Concentrator

NIAGARA Blower Co. has announced an improved model concentrator for the drying agent used in the company's controlled humidity method of air conditioning. This method uses a drying agent to absorb moisture from air directly, which sponsor claims



reduces humidity without refrigeration. It may be applied to increase the performance of existing air conditioning systems in the printing industry.

Niagara explains the drying agent is a liquid (Hygrol) which has hygroscopic properties that afford control of the relative humidity of the area or process that is conditioned. As it is diluted by the moisture it absorbs, a part of the liquid is pumped to the concentrator. In the concentrator this moisture is continuously removed to permit the air conditioning to operate at full capacity.

In the improved model, shown in the illustration, the diluted liquid is sprayed into an air stream over heating surface which raises its temperature, evaporating the water from it. The air stream then passes through eliminator plates which remove the liquid drops. In a second stage, it passes over a cooled reflux coil which raises the relative humidity in the chamber, condensing the absorbent vapor. In the third stage, it passes through filtration cylinders each of which contains a fog nozzle. Here the building up of high humidity completes the condensation of the absorbent liquid and its droplets are caught by the filters while the moisture laden air passes through. The re-concentrated absorbent drains to the tank in the base from which it returns to the air conditioning unit, completing the cycle.

If more information is desired, please mention PEE No. 338 in your request.

Photoelectric Equipment

A FOUR page bulletin descriptive of photoelectric equipment designed for various industrial uses has been issued by De-Tec-Tronic Laboratories, Inc. Applications of the equipment include counting and weighing, packaging and wrapping, pre-determined cutting, register control, humidity control, conveyor control, and control of motors. Accompanied by illustrations are descriptions of amplifier-relays, light source and phototube units. Specifications are also included. Please mention PEE No. 348 when requesting copies of the bulletin.

Letterhead Portfolio

PARSONS Paper Co. has made available a portfolio of business letterheads intended to serve as a source of ideas for professional and business executives. Prepared by Lester Beall, known in the Graphic Arts for his layout and design ideas, the portfolio is titled *How to Design a Letterhead*. Many of the suggestions will be found helpful to printers who are active in the printing and design of letterheads.

In letterhead design, according to Beall, the first decision to make is what information must appear, and second, what kind of impression the stationery should make. Of the ten letterheads in the portfolio, two are three color, two are two color and four are in one color. Beall points out that a number of press impressions are not necessary to get color in stationery. In the case of one of the two color letterheads, a third color was created by overprinting one color on the other. When requesting a copy of the portfolio, please mention PEE No. 352 in your letter.

Outdoor Lighting Bulletin

GENERAL Electric Co.'s 16 page bulletin titled *Outdoor Lighting for Industrial Plants* contains numerous suggestions for printing plants which are in operation at night and require proper illumination outdoors. Illustrated and explained are lighting applications for property lines, fenced boundaries, authorized entrances, area lighting, internal roadways, loading platforms, parking areas and areas between buildings. Colored illustrations are used to show the location of lights for such outdoor uses. A section of the bulletin is also devoted to outdoor lighting equipment. Copies may be obtained by mentioning PEE No. 353 in your request.

Offset Washup Process

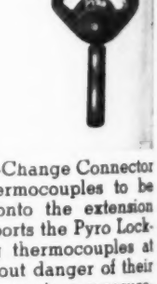
HARRY H. Rogers Co. has developed a washup process for offset presses comprised of three solutions which may be used on any press equipped with a washer blade. Known as Rogersol 1-2-3, the three-stage process involves pouring the three chemical solutions one at a time on the rollers while the press runs at idling speed. Sponsor claims only one washup is needed to run light colors safely and that no residue is left on the rollers from previous runs.

In use, the No. 1 chemical loosens the particles of ink pigments that stick in the pores of the rollers, states the Rogers company. Rogersol No. 1 is said to bring the particles to the surface in a few minutes. These particles of pigment are flushed from the surface of the rollers and blanket by Rogersol No. 2, which also is claimed will pull out the gum arabic from the roller pores. The No. 3 chemical, when applied, removes all traces of moisture that remain and serves as a blanket wash. Rogersol No. 3 may also be used for washing offset press blankets.

Additional claims made for the three solutions are that they are stable, will stay in suspension and each one will mix with the others. Should further details be desired, please mention PEE No. 340 in your request.

G-E Controls Bulletin

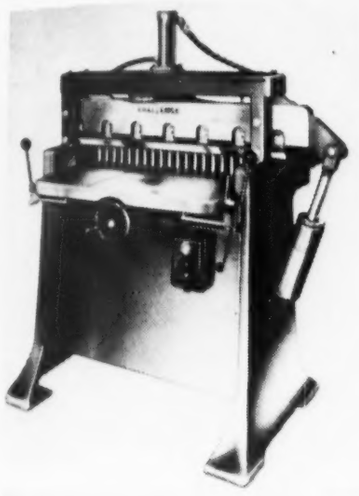
GENERAL Electric Co. has made available an eight page selection guide for electric and electronic controls, devices and accessories. Designated GEA-5781, the bulletin contains reference data, illustrations and listings of additional publications which offer more complete information on each of the controls. Products included in the bulletin are: manual, magnetic, combination and reversing motor starters; pushbutton stations; relays; limit switches; solenoids; photoelectric relay; electronic timer; electronic relay; pressure and vacuum switch; float switch; pressure governor; reduced voltage starter; Thy-mo-trol drive; and smoke density indicator and control. Please mention PEE No. 336 when requesting a copy of this bulletin.



Surface Pyrometer—The Pyro Surface Pyrometer, developed by Pyrometer Instrument Co., Inc., is designed for measuring surface and sub-surface temperatures. The instrument is available with a selection of 14 different types of thermocouples and extension arms for various surface and sub-surface temperature measuring problems. Sponsor states thermocouples are interchangeable without adjustment or recalibration. The pyrometer may be equipped with a Quick-Change Connector which permits the thermocouples to be snapped and locked onto the extension arms. The company reports the Pyro Lock-Swivel permits locking thermocouples at any desired angle without danger of their jarring loose while temperature measurement is being made. A $4\frac{3}{4}$ in. direct-reading dial is provided. It is claimed the instrument is shock, dust-and moisture-resistant. Five different ranges are available. More details may be obtained by mentioning PEE No. 351 in your request.

Improved Challenge Cutter

THE Challenge Machinery Co. has announced the Style F Challenge Power Paper Cutters which supercede the Style C. The new design in both hand clamp and hydraulic clamp models provides the following improvements:



The Style F Challenge Hydraulic Clamp Paper Cutter available in 26½ in. and 30½ in. sizes. A hand clamp model has also been announced.

wider, stronger knife bar; increased range of knife adjustment; more power on the knife bar for easier cutting; and greater oil capacity in the hydraulic unit designed to reduce oil temperature.

Safety guards on the Style F extend beyond the side frames covering both ends of the knife. The operating cylinder for the knife bar is located outside the right side frame for servicing. Sponsor states the hydraulic clamp cutter has positive clamp pressure which is held while the knife bar is operating. Pressure can be adjusted and is indicated on a gauge.

Both the hand and hydraulic clamp models are available in two sizes—No. 265, 26½ in., and No. 305, 30½ in. If more information is desired, please mention PEE No. 369 in your request.

New Method for Applying and Holding Press Blankets

A METHOD for applying and holding blankets to impression cylinders of rotary printing presses has been announced by Tingue, Brown & Co. This presently patent pending method carries the trade name, Tingulok.

The Tingulok method is built around use of two blanket reels. In this system, all blankets whether they be two or three piece combinations are attached to the Tingulok Lead Flap. Only the top blanket in the case of two piece or the drawsheet in a three piece combination is attached to the Tingulok Tail Flap. The Tingulok Lead and Tail Flaps can be attached to all press reels without removing the reels from press. This is a time factor in putting the new permanent Tingulok Flaps on. The Tingulok Lead Flap is made up of a canvas flap 9 in. long by the width on which have been applied three rows of Clipper lacing. The entire row of lacing is put on at one time to insure a perfectly straight line. The Tingulok Tail Flap is made up with one row of lacing. These flaps should last 15 to 20 years.

Some presses are made with a reel having ⅛ in. slot through which the flap is put. Other presses are provided with a reel, that is, a 1 in. steel rod that has been cut in two pieces and the top bolted in place to hold the flap.

All Tingulok Blankets and Drawsheets are supplied with the lacing attached.

Blankets can be put on in a fraction of the time that is normally required. Of importance is the means for changing a damaged blanket with minimum press down time loss.

In case of a severe accident, such as a lost plate, it is claimed, the Tingulok holds the blankets on excellently, thereby reducing further damage to the press.

It is also claimed that experience to date indicates it is impossible for blankets to shift or walk from side to side.

In blanketing the press the necessity for punching the lead end is eliminated, as is also the use of pins or stitches for the tail end.

It may be found that additional linage may be added because the angle required to get the blankets into the slot is reduced from approx. 180 deg. to less than 90 deg., allowing the blankets to conform to the slot edge readily.

Further information may be obtained by mentioning PEE No. 356 in your request.

Dom Catalog Available

THE G. C. Dom Supply Co. has recently prepared a catalog in which is described the firm's line of collodions, rubber cement, repro paper, solvents, coatings and developers for the Graphic Arts, and other specialties. Copies may be obtained by mentioning PEE No. 354 in your written request to *Printing Equipment Engineer*.

F&L Standard Colors Book—A new edition of F&L Standard Colors formulated for offset has been issued by the Fuchs & Lang Mfg. Co., Div. of Sun Chemical Corp. The 68 standard colors shown were lithographed on both offset and coated stock. The index includes complete characteristics of each ink, its name and the number to be used when ordering for large offset presses or Multilith, Davidson and similar small offset presses. With the exception of a four color process subject, each ink specimen sheet shows screen values, solids, reverses and a halftone. Detachable swatches have been placed at the bottom of each page for the convenience of customer, artist and pressman. Please mention PEE No. 376 when requesting a copy of this book.

Type Metal Chart

A CHART giving instructions for the remelting of type metals has been prepared by the John Mather Lupton Co., Inc., for its client, Federated Metals Div., American Smelting and Refining Co.

The 10½ in. by 13½ in. chart is printed in green and black on heavy coated stock. "We decided on a cartoon technique for this chart," said Douglas Warner, Art Director of the Lupton agency, "because we felt this would interest and influence shopmen more than straight instruction copy. The card, entitled Type Metal Talks, is intended for use in printing shops and newspaper mechanical departments. It tells in simple form the do's and don't's of good type metal melting practice," he added. If you would like to have a copy of this chart please mention PEE No. 378.

Vibration Control Bulletin

A FOUR page 8½ in. by 11 in. well illustrated bulletin (No. ER-702) has been issued by The Korfund Co., Inc. The bulletin is descriptive of Korfund Elasto-Rib isolation pad material. Sponsor states this material controls transmission of vibration and noise without bolting to the floor for most machinery and equipment applications. Loading limits are shown in diagrammatic form; description of material is also presented. Two halftone installations adaptable to the printing industry are shown. When writing for this bulletin, please mention PEE No. 373.

Bulge Rubber Mandrel

AN expanding mandrel has been announced by Frostad Engineering Co. The mandrel is slipped into the paper roll core and is then fastened to the shaft with the set screw or key. The mandrel is then expanded by turning a nut with spanner wrench. Manufacturer claims this type of mandrel is always symmetrical and provides better register in printing or fabricating because it eliminates any wobble due to rolls which are not correctly centered on the roll shaft.

View of Frostad Buldge Rubber Mandrel for paper roll cores. Manufacturer states that since this type of mandrel is always symmetrical, better register in printing and fabricating is obtained because roll wobble is eliminated.

The bulge rubber mandrel conforms to the inside of a 3 in. mill core by the expansion of rubber rings as they are compressed by tightening a nut.

The mandrel consists of three rubber rings separated by two steel spacers. One end of the mandrel is a fixed flange, while the other end is provided with a threaded ring or nut which is tightened by means of a spanner wrench. By tightening the nut against the rubber rings they are compressed laterally, causing them to bulge circumferentially to exert uniform pressure against the mill core.

The mandrel is fixed to the shaft by a Mac-it set screw or by a key and keyway. If necessary to hold the assembly while tightening the inside nut that bulges the rubber, another spanner wrench may be applied to similar holes in the first nut.

Length of the mandrel is 6 in.; diameter is $2^{15}/_{16}$ in.

Please mention PEE No. 357 when requesting further information.

Plate Bonding Film — An adhesive film supplied in roll form for use by photoengravers and electrotypers in mounting plates to wood or metal has been announced by Minnesota Mining & Mfg. Co. The product is called Scotch-Weld Brand Bonding Film No. 583. In use, the film is stripped from the protective paper liner and is laid on the mounting base; the plate is laid on top of the film and excess film is trimmed away; the assembly is then placed in a preheated press at 275 deg. to 300 deg. F., under constant pressure of 25 lbs. to 40 lbs. per sq. in., for 30 sec. for wood base and from 1 to 3 min. for metal base; after curing, the mounted plates are removed from the press and allowed to cool. Manufacturer states use of the film reduces risk of wood base warpage, allows flush mounting, and the bond is stronger than the wood base upon which the plate is mounted. After use, the plates can be removed from the base by re-heating for 30 sec. at 350 deg. F. under low pressure or by soaking in acetone or methyl-ethyl-ketone. Scotch-Weld film is available in 9 in. wide by 72 yd. rolls. Sample 9 in. by 11 in. sheets available by mentioning PEE No. 381 in your request.

Rubber Hose Assemblies

CARLYLE Rubber Co., Inc., has prepared an eight page, two-color bulletin in which it lists industrial rubber hose assemblies for all types of printing equipment. The different hose assembly descriptions are accompanied by illustrations and the various kinds of machinery for which they are designed. Specifications are also included. If a copy of the bulletin is desired, please mention PEE No. 371 in your request.

Rubber Plate Pattern Bulletin

THE making of pattern photoengravings for rubber printing plates is discussed in a 4 page bulletin issued by Mosstype Corporation. Illustrated are the four steps in making rubber plate pattern zincs telling about the difference in printing results when patterns of the correct specifications are used.

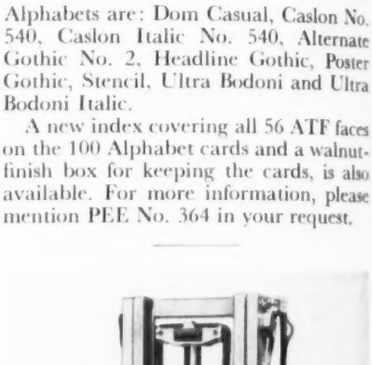
Copies of Pattern Engraving bulletin are available by mentioning PEE No. 375 in your request.

ATF Alphabet Cards

FOURTEEN alphabet cards have been added to the American Type Founders Alphabet Kits for specifiers, artists and layout men. The sets of $10\frac{1}{2}$ in. by $7\frac{1}{2}$ in. cards contain complete capital and lower case alphabets for every size made from 12 to 72 pt. Lower case alphabet length in points and characters per pica in normal composition are listed for each face. Position on the body is indicated in order to show how much shoulder can be counted on for line separation.

By inserting a specimen card beneath a layout tissue, an artist can trace the form of each letter in the desired size. Specifiers can visualize the face from the card. Faces now included in the ATF Alphabets are: Dom Casual, Caslon No. 540, Caslon Italic No. 540, Alternate Gothic No. 2, Headline Gothic, Poster Gothic, Stencil, Ultra Bodoni and Ultra Bodoni Italic.

A new index covering all 56 ATF faces on the 100 Alphabet cards and a walnut-finish box for keeping the cards, is also available. For more information, please mention PEE No. 364 in your request.



Paper Roll Clamp—For its line of fork trucks, Mercury Mfg. Co. has developed a hydraulically actuated paper roll clamp. The Clamp assembly is constructed unit fashion for installation in place of forks. Two bolts retain the assembly on lifting carriage and installation or removal and replacement can be made in 20 min. or less, claims sponsor. Clamping action is maintained by specially designed hydraulic system which includes a locking valve in the clamping cylinder and a pressure switch in the pump motor circuit. Clamp illustrated will handle 3700 lb. rolls varying from 30 in. to 36 in. Other size clamps available. Please mention PEE No. 374 when writing for additional information.

Universal and Single Range Tachometers

TWO tachometers covering a wide range of speed indication without frequent shifting from one range step to the next, or without shifting at all, have been announced by O. Zernickow Co. Accuracy of 0.05% at any reading is claimed by manufacturer. Both the O-Z Single Range and the O-Z Universal

View of O-Z Universal Hand Tachometer with carrying case and accessories. Housing is aluminum alloy finished in beige enamel with black anodized gear shift cap and bezel ring.

Tachometers have a knife-edge hand which makes almost two complete turns for each range. This, sponsor states, results in a very long scale with wide open divisions which are easy to read at all points. O. Zernickow executives state that to obtain these advantages an entirely new cross pendulum operating on the centrifugal governor principle has been developed. Other claims are accurate readings in any position, immunity against changes in temperature, electricity, magnetism or moisture, and these tachometers are not affected by rapid acceleration or normal overspeeding.

Another improvement consists of the high speed, light wind vane damping mechanism which eliminates all vibration of the indicating hand, yet lets the hand indicate speeds and speed variations instantly without the slightest lag.

Specifications for the two tachometers are as follows:

O-Z Universal Hand Tachometer—3 in. dial, single spindle, triple selective range with rotating gear shift. Made in two different range combinations for speeds 25-30,000 r.p.m. and 30-40,000 r.p.m. The f.p.m. speeds are half of the above, using a 6 in. circ. cut-meter wheel supplied.

O-Z Single Range Hand Tachometer—3 in. dial, range 300-4000 r.p.m., 150-2—f.p.m. using 6 in. circ. cutmeter wheel supplied. This type is suited for production work where certain speeds are encountered often. When requesting further information, please mention PEE No. 366.

Dehumidification Bulletin

ABBEON Supply Co. has issued its 1952 edition of the bulletin entitled *A Few Facts About Dehumidification for Industry*. The informative four page bulletin deals with such problems as mold, rust, mildew, caking, dripping pipes, wet walls, corrosion, warping, mustiness, etc., and how to overcome them. It includes explanations of what is meant by relative humidity and the signs and results of too much humidity. The various methods used to remove moisture from the air, some recommended humidities, and descriptions of instruments both for general use and scientific purposes to determine the amount of moisture in the air are also discussed in the contents. Copies of the bulletin are available by mentioning PEE No. 368 in your request.

Paper Making Bulletin

AN informative 12 page bulletin in which Black-Clawson paper making and converting machinery is illustrated and described, is available from the Shartle Bros. Machine Co. The bulletin contains stock preparatory, paper forming and paper converting machinery manufactured by the Black-Clawson Co., Shartle Bros. Machine Co., Dilts Machine Works and B-C International. Copies of this bulletin are available by mentioning PEE No. 361 in your request.

Sound-Survey Meter—An instrument designed for the measurement of machinery noise, deafness-risk surveys and noise studies on industrial equipment has been developed by General Radio Co. Designated GR Type 1555-A Sound-Survey Meter, the pocket-size instrument is operated by two controls on the front, visible in the above illustration. The total sound-pressure-level range is from 40 to 136 decibels. Three frequency weighting networks are provided. The meter, which weighs 1 lb., 14 oz. with batteries, may be operated in the hand, set on a table or mounted on a tripod. A leather carrying case is available as an accessory. If more information is desired, please mention PEE No. 360 in your request.

Gardner Technical Literature

A NUMBER of bulletins illustrative and descriptive of refinements in Gardner Testing Instruments are available. The first of these is Bulletin No. 110 in which is described the Gardner Gauge Stand and Attachment for measuring hardness in connection with the Gardner Thickness Gauge described recently in *Printing Equipment Engineer*. The Stand is for mounting the Gardner Gauge and assists in making highly accurate readings of dry thickness of non-electrical conductive coatings and other sheet-like materials.

Bulletin No. 925 refers to the Hellige Chromatron Photoelectric Colorimeter and Turbidimeter for chemical analysis, process control and product grading based on the measurement of the color or turbidity of a liquid. Among its applications are chemical analyses and color grading in the refining or manufacture of inks and dyes, pump and paper and many other products.

Bulletin No. 111 is entitled *New Testing Devices*. In it are illustrated and described new Stand for Gardner Thickness Gauge, Stand for Ford Viscosity Cup, Liquid Container for Gardner Washability Machine, Immersion Pump, Hopper Extension for Gardner Sand Abraser, and several others.

When writing for any or all of these bulletins, please mention PEE No. 377 in your request.

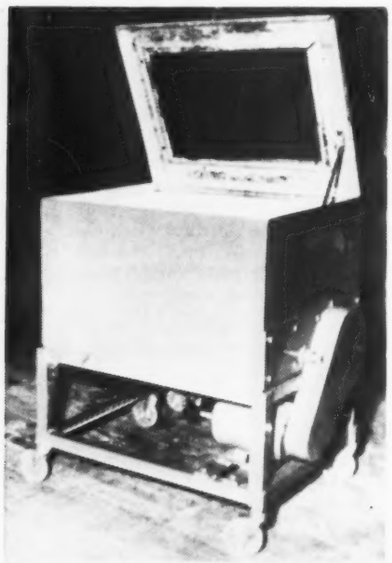
Miller Letterpresses

MILLER Printing Machinery Co. has prepared a colorful 16 page bulletin in which is illustrated and described the company's letterpresses. Entitled *Six Keys to Better Letterpress Production*, the cover design of the bulletin includes six keys, of which the loops are die-cut to show the location of the different Miller press models. Printed on various colored stock, it includes the following presses: 27 in. by 41 in. TY Two-Color, 27 in. by 41 in. SY Single Color, 21 in. by 28 in. TW Two-Color, 21 in. by 28 in. SW Single Color, 19 in. by 25 in. SG Single Color, and 28 in. by 41 in. CY Cutter and Creaser. Specifications, floor plan and side view of each press are listed. If copies of this bulletin are desired, please mention PEE No. 382 in your request.

Lev-lers for Heavy Machines—The Filter & Ejector Co. has developed a device for leveling heavy machines. The leveling devices are called Lev-lers. There are four component parts in the device—a lower and an upper slidable wedge section, a square head adjusting screw and a washer. The Lev-lers may be grouted after leveling the machine but may be left free for periodic adjustment. There are two sizes: 6 in. with lifting capacity of approx. 3 T., and an 8 in. size with 5 T. lifting capacity. Both are self-locking under load. Further information may be obtained by mentioning PEE No. 367 in your request.

Line-composing Machine Keyboard Cleaner

AN automatic Intertype and/or Linotype machine keyboard cleaning mechanism is announced by Yeager Newspaper Machinery Supply Corp. The machine consists of a tank covered with a glass-topped lid. The tank is mounted on casters for mobility. A drain



View of Line-composing Machine Keyboard Cleaner. Completely assembled keyboard is placed in machine tank for cleaning. Power driven propellors flush away all dirt. Keyboard cams rotate during cleaning operation. Compressed air is used to dry parts previous to oiling cam yoke pivots.

valve is supplied for flowing off the cleaning liquid. The machine is powered by a ¼ h.p. motor which drives the flushing propellors at high speed to create a turbulence which will flush the cleaning liquid between all of the moving parts of the keyboard. During the flushing and cleaning operation, the keyboard rubber roll shafts and cams rotate continuously through a belt connection with a pulley connected to the drive motor.

The entire assembled keyboard is placed within the tank without dismantling it in any way. Sponsor states a keyboard may be cleaned thoroughly in 15 min. It is also intended that the machine be used for cleaning the keyboard reeds in a few minutes—no removal of the reeds from the rack being necessary.

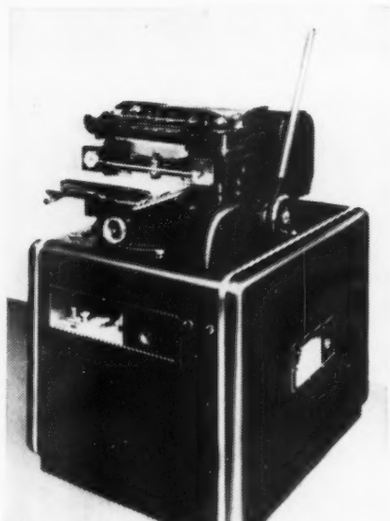
Oiling the keyboard cam yoke pivots, after the cleaned keyboard has been blown dry with compressed air, is accomplished in from 20 min. to ½ hr. The complete job from the time of removing the keyboard and placing it back in position on the composing machine, can be done in approx. 1 hr. and 15 min.

The time saved in the work of the machinist is considerable. The cleaning machine offers a means of cleaning all keyboards alike so that the operator won't have to fight the machine. Particularly in plants where the Teletypesetter system of operation is in use, and where operators are not seated at the keyboard, the keyboards must be maintained in as nearly perfect working order as possible. If you would like further information about the keyboard cleaning machine described above, please mention PEE No. 362 in your request.

Markmaster Dry Foil Printing

THE Markmaster Press is a machine for dry-foil printing upon metal, plastics, paper, wood, rubber, textiles, leather and cardboard. It may be used for dry-foil printing in various colors irregular shaped objects such as toys, powder compacts, cigarette cases, trays, brushes, buckles, dial plates, compasses, meters, gauges, machine tools, leather cases, booklets, etc.

In the Markmaster machine no ink is used. Only dry pigmented foil in 24 colors including gold and silver, is used. The combination of heat and pressure transfers the pigment from the foil and fuses it to the material impressed.



View of floor model Markmaster pneumatically operated multi-color dry-foil printing machine. Dry prints without ink upon various materials. This model prints flat or irregular shaped objects at 2000 or more per hr. Two manually operated models also are available.

The Markmaster unit is made in three models, two of which are manually operated. The third model (for long runs) is operated by pneumatic power but is supplied with an alternative manual control for setting and proofing.

Capacity of the two manually operated units (normally employed for single items or short runs) is from 300 to 600 per hr. according to the nature of the job and the skill of the operator.

In the case of the Marathon pneumatically operated model it is possible to achieve an output of 2000 per hr., one up. Where the job permits setting up in multiples, there is a proportionately higher output per hour.

Setting and proofing a job, states sponsor, seldom takes longer than a few minutes. There is no makeready.

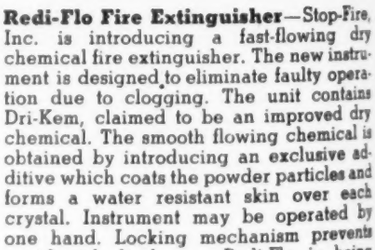
For simple letterpress work, such as showcards and the like, phosphor bronze types may be used. For more elaborate work or pictorial embellishment, steel or bronze dies are used. It is stated that good results can be obtained from unmounted coarse screen halftones. For certain purposes cardboard dies made by the operator are suitable.

In the case of odd shapes, the foil printing die should conform to the shape of the surface to be marked. If the article is not solid, a simple supporting jig should be provided. This jig can be made either of wood or metal with a convenient locating point to engage with some similar point on the article itself. Provision is made in the machine table which carries the work for holding such jigs.

Manufacturer states the following are features of the Markmaster units: (1) Several colors can be fed through at once in differing amounts to eliminate repeat runs on multi-color jobs; (2) Variable gap permits instant adjustment in tissue thickness to 6 in. max.; (3) Vertical lift insures even pressure over entire surface, from first contact, thus reducing wear on type and dies to the minimum, and (4) Pressure control permits metal to be deeply impressed or tissue paper may be printed lightly. For further information, please mention PEE No. 363 in your request.

Blatchford Bulletin

THE components of Blatchford type metal and the quality control employed in its production are described in an eight page bulletin prepared by Blatchford Div., National Lead Co. The information contained in the Blatchford bulletin relates the importance of treating type metal stock as a long-term investment and of periodic rejuvenation. Illustrations of photomicrograph sections of stereotype, Monotype, slug casting, foundry type and electrotype backing metal are included. Views of the Blatchford testing laboratories are also shown. Copies may be obtained by mentioning PEE No. 358 in your request.



Redi-Flo Fire Extinguisher—Stop-Fire, Inc. is introducing a fast-flowing dry chemical fire extinguisher. The new instrument is designed to eliminate faulty operation due to clogging. The unit contains Dri-Kem, claimed to be an improved dry chemical. The smooth flowing chemical is obtained by introducing an exclusive additive which coats the powder particles and forms a water resistant skin over each crystal. Instrument may be operated by one hand. Locking mechanism prevents accidental discharge. Redi-Flo is being produced in 3, 5 and 10 lb. units. Please mention PEE No. 372 when requesting additional information.

EXECUTIVE Cs

Harvey Glover, President of the Sweeney Lithograph Co., Belleville, N. J., and nationally prominent in the Graphic Arts, will be honored next September at a dinner commemorating completion of 50 years of service in the printing industry. According to David

Harvey Glover, President of Sweeney Lithograph Co., Belleville, N. J., to be honored in New York next September upon completion of 50 years service in the printing industry.

Atchison, President of the Printing Supply Salesmen's Guild of New York, the industry-wide tribute to Mr. Glover provides for participation by all major organizations in the trade. Present plans call for a banquet to be held in the grand ballroom of New York's Roosevelt Hotel on September 27. The actual date of Glover's golden anniversary is August 18, for on that day in 1902, he went to work as a fly boy for the Duncan Lithographic Co. of Hamilton, Ont., Can. Several years later he became superintendent of Rudor Press' offset department, Boston. In 1924, he assumed the direction of the lithographic division of Wynkoop, Hallenbeck and Crawford Co., New York. He is a past president of the Intl. Assoc. of Printing House Craftsmen and an honorary member of the Montreal (Can.) and Providence (R. I.) Craftsmen's Clubs. He is an honorary life member of the New York Craftsmen's Club. He is also a former president of the Litho Club of New York and a member of the Lithographers National Assoc. and the National Assoc. of Photo-Lithographers.

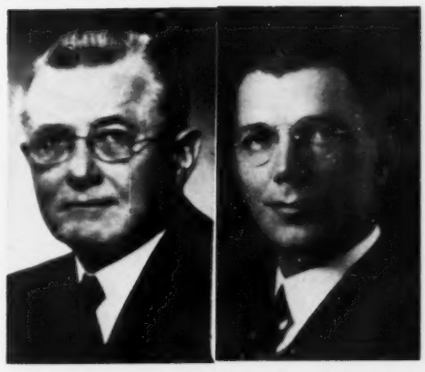
R. H. Mitchell, General Mgr. of Kidder Press Co., Inc., has announced several changes in the Kidder organization. Edward J. Peal, formerly chief engineer, has been promoted to the position of General Sales Mgr., with headquarters in Dover, N. H. Peal has been with the Kidder company for 14 years. Robert Zuckerman becomes Manager of Kidder's New York Sales Office, which is in the Empire State Building. Zuckerman was formerly a sales engineer with A. E. Marconetti, Inc. Robert P. Willard, formerly assistant chief engineer, has been promoted to the position of Chief Engineer, with responsibility for all development, design, and engineering. Willard has been with Kidder and associated companies for 15 years and is a graduate of Massachusetts Institute of Technology.

William (Bill) Warfel has been appointed Sales Mgr. of General Plate Makers Supply Co. Warfel's duties will include establishing a distribution set-up for Kodak film, dry plates and platemaking accessories now handled by General. He is a former member of the Mechanical Committee of the American Newspaper Publishers Assoc. and is known as the creator of the *Joe Bloe* cartoon series.

John Alwyn MacMillan, Director and former President and Chairman of the Board, The Dayton Rubber Co., died on June 7, 1952. He had been in declining health for the last several years. He was 79 years old and lived at Far Hills estate in Far Hills, O. He is survived by his wife, Patricia P. Baker MacMillan.

Edward C. Hemes, formerly general manager, has been elected a director and Executive Vice Pres. of Vulcan Rubber Products, Inc., Brooklyn, N. Y.

William Enchelmeyer has been appointed Purchasing Agent of the Ink Division of the J. M. Huber Corp., according to announcement by J. S. Hart, Vice President of the Division. Mr. Enchelmeyer will be located at the main office of the Ink Division, 620 - 62nd Street, Brooklyn, N. Y.



At the annual organization meeting of the Board of Directors of Intertype Corporation held recently, Paul Appenzellar retired as chairman of the board and was elected Chairman of the Executive Committee. Neal Dow Becker (left), who has been president of the firm since 1926, was elected Chairman of the Board and was designated to continue as chief executive officer. Harry G. Willnus (right), executive vice president since 1951 and vice president and secretary for some years previous, was advanced to the office of President. Frank Hoffman, Vice Pres., was elected to the Secretaryship also. Other officers were re-elected as follows. Alden T. Mann, Vice Pres.; Herman A. Peterson, Vice Pres. and Comptroller; Herman R. Freund, Vice Pres.; Harry A. Grube, Treasurer; and William J. Dunne, Asst. Secretary.

Richard M. Thatcher has been appointed Mechanical Supt. of the Lima (O.) *News*, according to an announcement by Wayne W. Galvin, Publisher. Thatcher has served as composing room foreman of the *News* since 1949. He came to the Lima newspaper from the Dayton (O.) *Journal-Herald*. Prior to that, he worked for Galvin on the Wilmington (O.) *News-Journal* from 1927 to 1946. Thatcher is married and has two children. He is succeeded as Composing Room Foreman by Danny Spargur who came to the *News* recently from Wilmington, O.

American Type Founders has realigned its web offset sales organization, according to Douglas Murray, Sales Mgr. of ATF's Webendorfer Div. Named Asst. to the Sales Mgr. is R. C. Marder (left). Howell Lee (second from left), formerly assistant to the sales manager, is now Eastern Sales Representative. At the same time, Andy Monroe (right) becomes Sales Representative under E. G. Ryan (second from right), District Mgr. for the Western District. Marder, a graduate of Carnegie Tech's School of Printing, came to ATF in 1946 and, in 1950, went to the Webendorfer Div. as engineering and technical assistant. Lee joined ATF in 1938 as a demonstrator and service man on web offset equipment. During World War II, he was a specialist in the Army's map reproduction department. Monroe started with ATF after World War II as a student engineer and has served in the Webendorfer Chicago sales office.

John P. Keating

John P. Keating, 76, Vice President and Production Mgr. of the Milwaukee (Wis.) *Journal*, passed away on Monday, May 19 in Columbia Hospital, Milwaukee. He was stricken with a cerebral hemorrhage and did not regain consciousness. Keating started as a printer's devil at the age of 12 with the Oshkosh (Wis.) *Northwestern*. He traveled extensively as a journeyman printer. In 1908 he came to the Milwaukee *Sentinel* as a Linotype operator. In 1917 he associated with the *Journal* as Composing Room Superintendent. He was advanced to Mechanical Supt. in 1918. He was made Production Mgr. in 1922, and in 1939 was named Vice President and Director of The Journal Co.

Mr. Keating was one of the pioneers in applying engineering principles to newspaper plant operation. His methods were not confined to improving composing room operation alone—they extended to complete plant manufacturing coverage.

Keating never made any claim that he could perform personally the many techniques involved in mechanical operations, but as a supervisor he possessed uncanny knowledge as to whether or not the work was done in the best way possible in minimum time. Along with this qualification, Keating had utmost respect for a competent craftsman.

He was one of the first, if not the first, to establish a control or dispatch department in connection with composing room operation for handling detail work suitable of accomplishment by clerks, under supervision of competent printers, rather than having printers divert their attention from composition and makeup. The control department function was gradually extended so that at the time of his passing, all editorial, advertising, art and photographic copy was channeled through the production department, thus centralizing all manufacturing and scheduling operations in the one department. Keating was an advocate of improved customer relations, he believing that a continuous effort must be made to keep customers conscious of the requirements of newspaper manufacture. To this end, people fitted for the purpose, contacted customers in the never-ending effort to secure their cooperation.

Not many years ago, a few metropolitan newspaper executives tackled the problems of r.o.p. color printing. Keating was one of them. At that time, the equipment was not suited for this kind of printing. With the assistance of Joseph McMullen, Henry Arbogast, Louis Gilg, Harry Wrasse, and other *Journal* executives, editorial and advertising run-of-paper color printing was gradually developed over a long period of time. From the outset, Keating believed that newspaper color printing could only be accomplished through tight cooperation of all departmental executives concerned together with customer education regarding the limitations of such color printing. The latest development in r.o.p. color printing in the *Journal* comprehended the use of three primary colors in place of three colors and black in color process printing. Excellent results have been obtained at the *Journal* with three color printing through the use of a Curtis Color Analyzer. Keating also sponsored radical mailroom mechanization at the *Journal*.

Ever since his early days in the newspaper field, Keating had been a member of the Intl. Typographical Union. In 1947, Milwaukee Local No. 23 awarded him a 50 year gold membership pin. In 1948, on the occasion of the inaugural ceremony of a new press at the *Journal* he was awarded a gold lapel emblem and a working card in the Milwaukee Web Pressmen's Union Local No. 23.

Surviving are his wife, Alice; two sons, Attorney William J. of Milwaukee, and Dr. Daniel R. Keating of Cleveland; a brother, William, of Milwaukee, and seven grandchildren.

A requiem high mass was sung on Wednesday, May 21 at St. Monica Catholic Church, Whitefish Bay, Wis. Burial was in Holy Cross Cemetery.

Ken N. Cramer, District Mgr. of the Ideal Roller & Mfg. Co. has been elected President of The Printers Supplymen's Guild of Cincinnati. Other officers elected were as follows: First Vice Pres. Jack Dougherty, Roberts and Porter; Second Vice Pres. Warren Hayes, H. Blacker Printing Inks, Inc.; and Secretary-Treasurer Dan Kramer, Standard Paper Co., Lee Augustine is the retiring president.

Thomas Roy Jones, Chairman of the Board of American Type Founders, Inc., was awarded an honorary degree of doctor of laws by Lafayette College in Easton, Pa., recently. Jones attained a degree in engineering from the University of Kansas and also attended the Harvard Graduate School of Business Administration. In 1932, he became president of American Type Founders.

Ernest Gamble, jr., has been named assistant director of the National Printing Ink Research Institute at Lehigh University, Dr. Albert C. Zettlemoyer, director, announced. Gamble is a 1942 graduate of Lehigh University.

Bob Loveland, Chicago Branch Mgr. of Fuchs & Lang Mfg. Co., Div. of Sun Chemical Corp., has announced the appointment of five new technical sales and service representatives for the Mid-West area: Les Drescher in Western Michigan, Fred Proschek in Detroit and Eastern Michigan, Hillard Tobey in Chicago, Illinois and Indiana, Ted Wasilowski and Art Larson in Chicago.

It has been announced that Robert L. Thompson was recently appointed Pressroom Supt. of the Charleston (W. Va.) *Daily Mail*.

The Hanson-Van Winkle-Munning Co., has announced the appointment of Almo D. Squitero as Chief Chemist. Squitero will take over laboratory administrative duties and will supervise research and development in the fields of Graphic Arts plating and plating processes. He succeeds Dr. Gardner Foulke, recently appointed Executive Secy. of the American Electroplating Society. Squitero joined the company as an electrochemist in 1950.

The ABC of OFFSET

For Letterpress Printers

Series Two

By George Jos. Lenzer

VII—WORKFLOW PRODUCTION PATTERN No. 3

BY comparing Work Flow Pattern No. 3 with patterns No. 1 and No. 2, (*Printing Equipment Engineer*, June 1952) we observe color as an integral part of the chart, identified as the Commercial Art department.

Because color reproduction imposes several deviations from the singular reproduction procedures for line and halftone of white and black copy, special consideration and handling is required. For this reason a separate department is established.

Another determining reason for separate departments is based upon the illumination requirements of both. Where the lighting for the Layout and Stripping department is afforded by illuminated layout and stripping tables, in an area of generally subdued lighting; the Art department requires more daylight and more brilliant illumination for better color comparison and reproduction.

Further study of Workflow Pattern No. 3 will show that the flow of original copy may or may not by-pass the Layout and Stripping department. This, because the Layout and Stripping department is primarily concerned with handling and assembly of film negatives and positives, whereas the Commercial Art department must handle both films and glass negatives and positives.

Even though the two departments are separate and distinct, production in many instances is closely integrated and interdependent because of procedure requirements in color reproduction.

Procedure requirements are determined by such factors as the nature of the original copy, whether it is composed of one or more separate pieces, *i.e.*, a single overall sketch or illustration containing all the necessary elements of lettering and illustrations; or whether the original copy consists of a working drawing, certain color overlays, with individual areas to be illustrated by reproductions of color transparencies. Additional requirements are determined by the kind of printing plate; or, how many impressions are to appear on the printed sheet; whether the plate will be photocomposed or whether the multiple images must be set-up in a Flat assembly.

By accepting these several complications in reproduction procedures as matter of fact, let's trace Pattern No. 3 in a few distinct instances.

Example No. 1
Single Overall Color Sketch

Here, our mythical art work consists of an overall sketch complete in every detail, correctly scaled during its preparation and containing all necessary register marks and keyed instructions, for an enlargement to twice the original size. The job is to be color proofed and will be printed two up on the finished impression, from deep etch plates.

In this example, the original art work or copy is delivered directly to the Commercial Art department for final check before release to the camera department, and photographic processing.

Assuming in this instance that the job will be reproduced in four colors—yellow, red, blue and black—the cameraman proceeds to photograph the original copy, utilizing specific sensitive materials, plates and color light filters. What the cameraman produced is a set of color separation negatives, generally on matte glass continuous tone photographic plates. When dry, the negatives with the original copy are delivered to the color artist or correctionist in the Commercial Art department.

The set of color separation negatives is compared to the original copy and checked for color balance, density of image, and tonal transparency. If the tonal transparency is inadequate, the correctionist will chemically reduce the grey image in order to increase the tonal transparency to its required intensity. After all chemical reduction has been completed, and the negatives have been washed and dried, the separations are re-examined for tonal density, of the grey image.

If greater density is required in certain areas and on certain of the separation negatives, this correction may be made by chemical intensification of the selected areas. Following all chemical manipulation, the treated negatives are thoroughly washed and dried.

When dry, the negatives are manually corrected by the use of pencils, paper stumps, air brush, powdered graphite, stains and opaques. Use of these materials enables the artist to further intensify certain areas of the grey image, and to render opaque such areas as are not desired in the final impression.

Opaqueing the negative may be considered a waste of time when we remember that flash dots in the halftone reproduction will appear over all of the areas which had been rendered opaque on the continuous tone negatives. These objectionable flash dots can be quickly eliminated during dot etching procedures.

After the continuous tone separation negatives have been fully corrected, they are returned to the camera department for re-photographing and enlarging to the correct and final sized enlargement, as halftone positive images on glass photographic plates. When dried and checked for correct size, the set of positive separations is delivered to the Art department for further post camera manipulation.

The correctionist or dot etcher now compares the positives with the original art work for correct tonal and color balance. If the first corrections had been properly judged on the continuous tone

Adds Two-Color Harris Press—A recent addition to the pressroom of the Colwell Press, Inc., is this two-color 35 in. by 45 in. Harris offset press which becomes the largest press now operated by the Minneapolis firm. Through the Colwell firm's subsidiary, Lithocraft, Inc., the company operates eight offset presses. From left to right are Leo Smith, Asst. Pressman; George Geronsin, Pressman; Felton Colwell, President of Colwell Press; Carl Struck (kneeling), Harris-Seybold representative in the Twin Cities area; and Harry Waldeland, Plant Supt. Colwell is a director of the Lithographic Technical Foundation and a board member of Printing Industry of America.

negatives, then an overall flat etch of the positive may be sufficient to remove the offending flash dots which will be present in the positive. If further correction is required after flat etching, then those areas to be preserved and staged with an acid resisting varnish. When the varnish or resist is dry, the area to be corrected may be either reduced or intensified to whatever degree the correction merits.

With the chemical manipulations completed, all varnish or resist is removed with the correct solvent after which the positives again are dried. All areas which are to appear in the final impression as solid color are now filled in solid on the positive with opaque color or pigment. Broken or missing dots are repaired or replaced, and the completed set of separation positives is subjected to another general inspection for correctness. If found to be acceptable, they are released to the platemaker who proceeds to make the proving plates.

When, after proofing, it is found that certain other corrections are necessary, the positives are returned to the artist or dot etcher who makes the final corrections either manually or by chemical manipulation.

Given approval of the final corrections, the positives are returned to the platemaker who now proceeds to make the press plates, making the exposures for the two images on a photocomposing machine.

In tracing Workflow Pattern No. 3 up to this point, it is seen that the Layout and Stripping department has been completely by-passed in all production procedures for this type of reproduction.

Example No. 2
Multi-Unit Art Work

Our imaginary job, to be traced in this example, consists of a working drawing (paste-up), containing all necessary type composition, hand lettering and photographic copy. A certain area is designated for a four color reproduction of an oil painting which must be reduced in size to fit the designated area on the paste-up.

Tracing this job over Workflow Pattern No. 3, we find that all of the material is delivered to the layout department where all of the elements are scaled to the correct proportional size for the reproduction. Cropping and register marks are affixed to all of the elements of the original copy.

With the preliminary work completed, the multi-unit art work is delivered to the photographing department.

The camera man makes a line photographic negative of the paste-up working drawing, halftone negatives of the photographic illustrations, and a set of glass continuous tone separation negatives of the oil painting.

For reasons of economy, the line and the black and white negatives of the paste-up, were made on film. This fact indicates that, in this instance, a negative flat will be necessary for making the printing plate.

When releasing the negative material, the cameraman delivers all of the film, line and halftone negatives to the layout department, and the glass continuous tone separations negatives to the commercial art department.

The original art work is similarily distributed to the separate departments, the paste-up working drawing and photoprints to the Layout and Stripping department, and the oil painting to the commercial art department.

In the Layout department, the material is prepared for assembly of the flat, which must then be held in readiness for the halftone color negatives yet to come.

The color artists and correctionists perform the duties outlined in Example No. 1 with this exception, that all operations must be performed with greater care and judgment of color values, tones and densities because, it will be noted, that proofing has not been mentioned as a requirement to the reproduction procedures.

When the continuous tone negatives have been corrected they are returned to the cameraman for reproduction to halftone positives.

Upon receipt of the halftone color separation positives the dot etchers carefully perform the chemical and manual operations, making certain that, upon completion, the dot etched and corrected positives are clean and free of any defects. This care and caution is essential, because, our mythical job will eventually be printed from albumen plates, our final negatives must be composed of cleanly and sharply defined halftone dot formations.

The corrected and dot etched positives are released to the cameraman whose next operation is the production of a set of contract film negatives, which will serve the platemaker in making the color printing plates for our oil painted copy reproduction. These contact color separation negatives are released to the Commercial Art department for a final inspection and comparison, after which they are delivered to the Layout and Stripping department.

Here, the black negative of the color set is tipped into position in the existing black printer flat. Similarily, all other separation negatives are stripped into separate flats one for each color, and in close register with the master black printer flat.

When all of the flats are completed and all necessary operations performed, the flats are released to the platemaker for the platemaking operations. Theoretically, this operation completes our tracing of Workflow Pattern No. 3 in this example.

Example No. 3
Black and White Fake Color

Imaginary copy for this mythical job consists of an overall black and white combination working drawing, including wash drawings, line design and lettering, and a photo print to be reproduced in four colors. Color suggestions are provided by overlays of pastel and water color.

The overlays in this instance are of no photographic value, and serve no purpose other than to indicate the coloring desired in the reproduction.

Length of the edition requires that the job be printed from deep etch plates.

Tracing Workflow Pattern No. 3

This particular problem sets up an occasion for good planning, and close co-operation between all processing departments and department heads.

Since the original copy is such that it cannot be divided between the several departments and must of necessity remain intact, it makes little difference which department it enters first, the Layout and Stripping, or the Commercial Art department.

For production expendiency, let's trace the copy through the Layout department first. Upon receipt of the copy and the necessary order material, the foreman analyzes the job and calls in the foreman of the Commercial Art department for a consultation to determine what course of procedure to pursue, and what colors to be used.

With a course of action decided, the layout man makes an overall tracing of the original art work, establishing all necessary reference marks, and indica-

(Continued on Page 58)

Acetate Masking

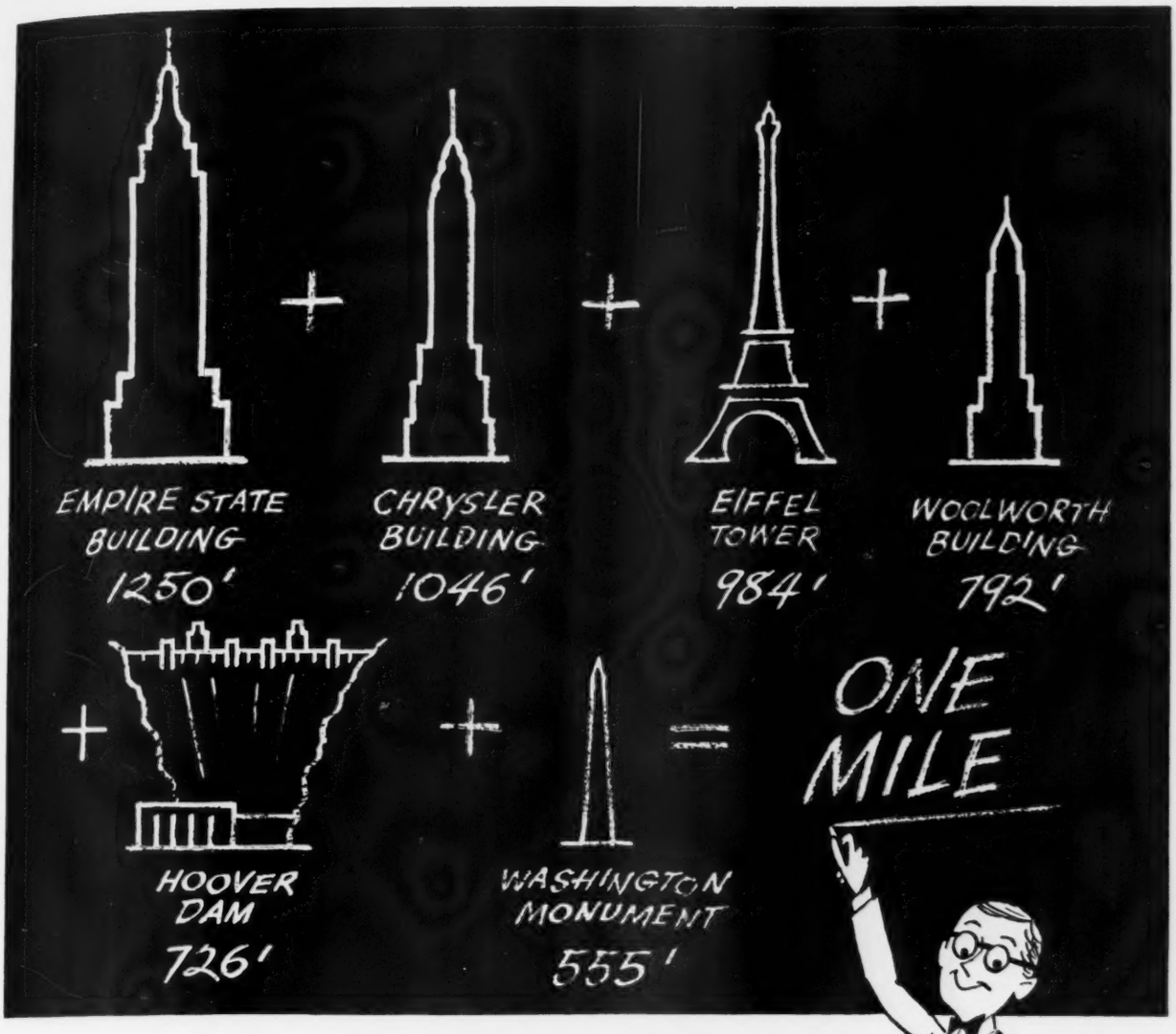
By JOHN T. WRIGLEY*

*Photo-Process Engraving Co., Atlanta, Ga. Abstract of address delivered before Southwestern Photoengravers Assoc., Little Rock, Ark., January 1952.

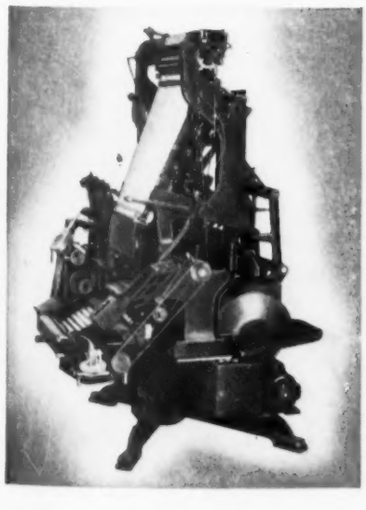
THE acetate masking method is the greatest time saver one can use. With its use, all silhouetting, combining line and halftone, tinting, color separating of the simpler jobs, eliminating, putting in solids, phantoming, tone accentuating, surprinting, and a world of other things may be done finer and faster. With it, many things can be done that would be impossible in any other way. It is not too reliable on very large work. Only flat, clear acetate, free from scratches, should be used. The most satisfactory thickness is 0.0075 in.

Craftint black and white masking inks are very good masking inks. Masking tape is better than Scotch tape since it is less susceptible to contraction and expansion. Mask registration is, of course, very important at all times. To check the register of a mask over a copy at the camera, before the negative is made, the operator should view it from a position directly in front of the lens after the copy frame has been tilted down. Masked copies should be photographed reasonably soon after they are masked, since acetate and tape are not dimensionally stable.

Masks should not be sent to customers with the return of copies—they are a means to an end for the engraver and are not billed to the customer. Acetate mask artists should understand photoengraving but work in perfect harmony with the men in the shop or good results will never be obtained. The acetate masking system produces more photoengraving and is of direct benefit to everyone in the industry.



. . . and the Comets you've bought would stretch the same distance!



If all the Comets publishers and printers have bought were lined up in a row, they'd stretch for a full mile—and then some! The Comet has become the world's largest selling composing machine as the result of its *proved production* and *proved performance* during the past year and a half. This acceptance fully demonstrates the conviction among publishers that the Comet is the machine they wanted for sustained speeds up to 12 lines a minute to meet all local requirements, operating simplicity, and maintenance economy! Write for full details on the Comet. Mergenthaler Linotype Company, Brooklyn 5, New York.

✓PROVED PRODUCTION! BLUE STREAK **COMET** ✓PROVED PERFORMANCE!

Set in Linotype Corona and Spartan Families

NPA

Printing and Publishing Division

Continuance of M-65

Members of the Magazine Industry Advisory Committee recently recommended to the National Production Authority, that its order on the conservation of critical materials in printing plates, M-65, be continued in its present form for the time being. The order, issued on May 31, 1951, limits the time during which obsolete metal printing plates may be held in various printing establishments, after which they return to provide scarce metals for other uses. Committee members said the order is working very well, particularly for small publishers. In addition, NPA was told, the operation of the order is not working any hardship on the industry.

Zinc Order Relaxed and Metal Orders Revoked

Order M-9, into which all zinc controls were incorporated on March 7, 1952, was amended recently to remove the allocation and use controls. This amendment also abolishes restrictions on acceptance, delivery and distribution of zinc scrap on toll agreements. Inventory control is retained in Order M-9 as amended, but the limitation provision was modified to permit slab zinc users to carry a 60 day inventory.

Complete revocation of five metal orders was announced by NPA Administrator Henry H. Fowler. The orders are as follows: M-48 (Bismuth); M-19 (Cadmium); M-38 (Use of Lead); M-76 (Distribution of Lead); and M-39 (Antimony). Fowler said that supplies of the affected metals now are considered sufficient to warrant abolition.

Commercial Printing Meeting

The National Production Authority, in a meeting with the Commercial Printing and Lithographing Industry Advisory Committee, said that during the first quarter of 1952 it was able to assist 824 weekly and other publications in obtaining scarce newsprint. This was accomplished partly through the cooperation of newsprint mills and partly through the assignment of tonnage from large newspapers.

NPA urged the committee to segregate wet strength paper from its waste paper and to make an effort to limit the amount of latex being used in its paper products. Latex used in beater furnish, NPA said, is not in itself a serious problem without the added effect of latex base inks and adhesives. The committee recommended that NPA's Order M-65 on the conservation of critical materials in printing plates be continued in its present form.

Book Publishing Meeting

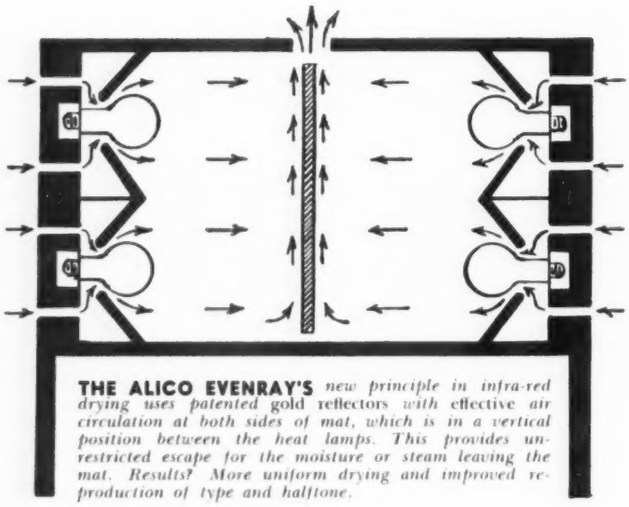
NPA told the Book Publishing and Manufacturing Industry Advisory Committee at a recent meeting that the agency has been able to relax a number of its controls during the past nine months. NPA reported that the expansion programs of the pulp, paper and paperboard industries should take care of all defense and civilian requirements except for newsprint.

The committee recommended continuance in its present form of NPA Order M-65 on the conservation of critical materials in printing plates. NPA urged the industry to work toward separating various kinds of waste paper because of the losses involved in processing mixed waste paper. A bulletin on separating methods may be obtained from the Wastepaper Consuming Industries Assoc., NPA advised.

Students Visit GBW

Members of apprentice training classes at the Chicago Lithographic Institute were recent guests of Gaetjens, Berger & Wirth, Inc., for a tour of its Chicago plant to view the manufacture of printing inks. The various steps in ink making were shown the group, including color matching, mill room procedure, mixing from dry color and from base inks. Demonstrations of the fadeometer and the firm's proof presses were also performed. A question-and-answer discussion followed the tour.

Save Newsprint, Get Better Quality With High Shrinkage Mats...Use Alico Evenray Mat Dryer



THE ALICO EVENRAY'S *new principle in infra-red drying uses patented* gold reflectors *with* effective *air circulation at both sides of mat, which is in a vertical position between the heat lamps. This provides unrestricted escape for the moisture or steam leaving the mat. Results? More uniform drying and improved reproduction of type and halftone.*

The Alico Mat Dryer has been developed to dry high moisture content mats uniformly while preshrinking and to set the mould depth to improve printing quality. Final shrinkages up to 1⅛" per page now obtained with Alico Evenray.

After the mats are rolled or moulded they are inserted into the Dryer in a vertical position. After the cover has been closed, an electronic timer, pre-set to desired timing period (usually from 30 to 60 seconds), automatically turns on 12 infra-red lamps. These are mounted in special gold-plated reflectors shaped to direct the heat rays with equal intensity to every portion of the mat's surface. (see illustration).

The final results are more uniform drying and sharper and clearer printing of type and halftones. Send for illustrated brochure.

ALICO, *Inc.* WEST SPRINGFIELD, MASS.

Patents

For The GRAPHIC ARTS

Covering patents issued April 1, April 8, April 15, April 22 and April 29.

All new patents for the Graphic Arts are reported exclusively for Printing Equipment Engineer by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. Printing Equipment Engineer is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Composing Room Equipment

2,592,379. PROOF PRESS includes a hollow cylinder mounted for rotation about its longitudinal axis. A horizontal printing form carriage is mounted on the support for longitudinal movement under the cylinder. A clamp on the cylinder releasably secures an edge of a sheet of paper to cylinder when the clamp is at an upper position on the cylinder. There are gear connections between the cylinder and carriage for moving the carriage longitudinally under the cylinder. Manually operable means simultaneously lift the cylinder and operate the clamp for release of a sheet of paper. Invented by Freeman Barney, Spring Lake, Mich. Assigned to The Challenge Machinery Co., Grand Haven, Mich. Application November 8, 1947. 4 Claims.

2,593,575. PRINTING CHASE includes a rectangular chase frame having mortise recesses along its inner faces, each recess having a right angular seat at one end and a chamber at its opposite end. A crossbar has each end seated in a recess so that a right angular shoulder of each end of bar engages the right angular seats of recesses. Pivoted detents having inclined faces in the ends of the bar have chamfered tenons adapted to engage the chamfers of the recesses. Bars slide in the ends of the crossbar and have means slidable on the inclined faces of the detents to displace the detents when slid to fasten the tenons in locking engagement with the chamfer of the recesses. Invented by Chester L. Lance, Dallas, Tex. Unassigned. Application March 5, 1948. 9 Claims.

Feeding, Folding, Delivery

2,591,116. SHEET SEPARATING AND FORWARDING MACHINE for use with a printing press uses a suction gripper operating near the rear edge of the upper surface of a pile of sheets. A cooperating piston and cylinder operate the gripper, a valve being placed in a conduit leading from the gripper mouth to the cylinder. The machine is arranged for operation in a cycle in which the gripper is lowered into engagement with the uppermost sheet with the conduit open, the port closed and suction applied to the cylinder so that the closing of the mouth of the gripper by the sheet seals the cylinder from the atmosphere and enables suction to build up in cylinder to effect relative movement between piston and cylinder to raise gripper and sheet. Invented by Headley T. Backhouse, Sunningdale, England. Unassigned. Application April 21, 1949; in Great Britain April 22, 1948. 6 Claims.

2,592,090. PAPER WINDING AND SMOOTHING DEVICE provides means for crowning a travelling web of paper just as it goes into a roll. This means is arranged to adjust itself automatically as the diameter of the roll increases. By so crowning the paper and exerting a slight pressure against it, the tendency to wrinkle in any substantial extent is eliminated. This crowning effect may be secured by the provision of a spreader bar which is arched to a slight extent and it is pivotally supported in such a manner that counterweights may be used to yieldably hold it in operative engagement with the travelling web of the paper. Invented by Allen E. Weaver, Wellsburg, W. Va. One-half assigned to Hammond Bag & Paper Co., Wellsburg, W. Va. Application August 30, 1946. 3 Claims.

2,592,998. FEEDER AND IMPRESSION CYLINDER CONTROL FOR PRINTING PRESSES uses a pneumatic valve system for controlling the feeding of paper sheets to a printing press and for simultaneously controlling the impression cylinder for the on and off positions. The system includes means by which, on failure of the vacuum suckers to deliver a sheet of paper to the impression cylinder, the latter will be held against movement toward the type or toward on position, whereby

for the finest Equipment and Supplies...

order from EASTERN!

Just as they are doing for MANY newspapers... EASTERN Products can bring to YOUR plant all the advantages of quality, dependability and economy! Try these now and SEE THE DIFFERENCE!

WRITE FOR NEW 1952 CATALOG!

- PLASTIC MOLDING BLANKETS
- DEEPMOLD BLANKETS
- NEOPRENE BLANKETS—⅛", 3/16", ¼"
- TRU-MOLD CORK MOLDING BLANKETS
- FLECTO GUMMED BACKING FELT (Individually packed 5 sheets per bundle)
- DOUBLE COATED CUT MOUNTING TAPE—¼", ½", 1", 2"
- BACK UP BOARD .015 FOR 18 GAUGE ZINC
- EASTERN CIRCULAR SAWS AND JIG SAW BLADES
- DIRECT PRESSURE MOLDING MATERIALS
- MATRIX DRYING MACHINES
- MATRIX SCORCHERS... MATRIX TRIMMING KNIVES
- ASBESTOS COVERS FOR ALL SCORCHERS
- CURVED AND FLAT CASTING BOARD
- COMPOSING ROOM AND STEREOTYPE EQUIPMENT

REPRESENTATIVES FOR:

STA-HI CORPORATION • H. B. ROUSE COMPANY • CHALLENGE MACHINERY COMPANY • AMERICAN STEEL CHASE COMPANY • WESEL MANUFACTURING COMPANY • THE MORRISON COMPANY

EASTERN FOR ECONOMY

EASTERN NEWSPAPER SUPPLY, INC.

9603 Northern Boulevard • Corona 68, N. Y.

application of ink to the cylinder blanket is prevented. Invented by John F. Banthin, Bridgeport, Conn. Unassigned. Application May 1, 1947. 5 Claims.

2,593,148. SHEET REGISTERING MECHANISM FOR PRINTING obviates the need for suction devices. A registering cylinder having an axially extending groove in its surface and an axially reciprocable bar to which an arcuate shell is attached is pressed against a sheet by means of tapes. The tapes are so tensioned and the arc of the shell is such as to exert a lateral registering traction upon the sheet on movement of the shell. The tape positioning means provides for slight lateral shifting of the tapes by the sheet as the sheet moves laterally in response to registering traction. A bar moving mechanism is also included. Invented by William F. Huck, Forest Hills, N. Y. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application September 27, 1946. 5 Claims.

2,593,180. SHEET TRANSFER DEVICE FOR PERFECTING PRESSES of the rotary offset type provides for placing printing units close to the floor of the pressroom and for a spacing between the units which permits an operator to work between same on a platform. An endless conveyor runs under the operator's platform and transfers sheets from one unit to another. There is an idler cylinder in sheet transferring relation with the impression cylinder of one unit, the conveyor running over the idler cylinder and over the impression cylinder of the other unit. Invented by Howard A. Pritchard, Hiram, O. Assigned to Harris-Seybold Co., a corporation of Delaware. Application July 13, 1945. 4 Claims.

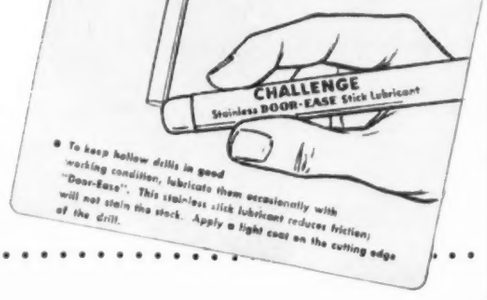
2,593,181. SHEET FEEDER. This rotary feeding mechanism is adapted for lap feeding of sheets and is contained in a compact carrier at the forward end of a supply. The mechanism is driven by simple driving connections and involves a minimum of reciprocating parts. Sheet gripping units including one or more suckers, are operated to roll up the front edge of the top sheet, allowing air to enter between it and the next sheet of the stack. When top sheet has been lifted off the supply to a predetermined height, and without disturbing its rear edge, a second sheet gripping unit in the same carrier takes the sheet from the first gripping means and raises it to an extent sufficient to permit it to move forward over the top of the carrier whereupon it is taken by pull-out rolls. Invented by Howard A. Pritchard, Hiram, O. Assigned to Harris-Seybold Co., Cleveland, O. Application July 30, 1946. 23 Claims.

2,593,242. SWITCHING TYPE CONVEYOR is for conveying newspapers from either of two folders to a common delivery table. Three conveyors are used, each being of the belt and pulley type. The conveyors are operated by switches which have separate sets of belts having unlike paths of travel afforded active positions selectively according to the conveyor relationship to be established. The belts of the conveyors cooperate with belts of the switches to receive and grip the newspapers to be conveyed. Invented by Warren Bacon et al, Chicago, Ill. Assigned to Cutler-Hammer, Inc., Milwaukee, Wis. Application February 21, 1947. 13 Claims.

2,594,373. A FLUFFING NOZZLE FOR SHEET FEEDERS for effecting preliminary separation of the topmost sheets of a supply thereof to a printing press comprises means defining a hollow nozzle head having an air inlet and two forwardly extending side walls on the front of the head which define the air outlet. The front has two discharge orifices through which air flows forwardly in unconfined streams in the nozzle outlet. The air impinging the side walls is deflected inwardly toward a zone centrally between the side walls as it passes forwardly out of the nozzle outlet. Assigned to The Christensen Machine Co., Racine, Wis. Application March 3, 1950. 5 Claims.

2,594,701. CONVEYOR MECHANISM FOR PRINTING PRESSES comprises several gripper elements distributed at uniform intervals along a common straight line for receiving and gripping the leading edge of a sheet delivered thereto. A support for gripper elements moves to convey the sheet after its leading edge is gripped by the gripping elements and then return them for a succeeding sheet. A rack is slidably mounted on the support in mesh with the gear of each of the gripper elements. A rach and cam are operatively connected to effect movement of the rack so as to disengage the movable jaw from the fixed jaw. Invented by Roy F. Aberle, Portland, Me. Assigned to Southworth Machine Co., Portland, Me. Original application September 20, 1946; divided and this application April 9, 1948. 5 Claims.

IT'S A TRICK
OF THE TRADE...


CHALLENGE
Stainless DOOR-EASE Stick Lubricant
To keep hollow drills in good working condition, lubricate them occasionally with "Door-Ease". This stainless stick lubricant reduces friction; will not stain the stock. Apply a light coat on the cutting edge of the drill.

BUT IT'S NO TRICK
TO MAKE A BETTER IMPRESSION
WITH A

CHALLENGE PROOF PRESS

Pull a proof on a Challenge Proof Press and see the difference. Notice the sharp, clean impression . . . how readily bad type and damaged cuts are revealed.

There's a full selection of six styles — one general utility, stationary bed model and five with reciprocating bed . . . featuring the famous Challenge "cylinder press" principle which assures easy (anti-friction) operation. Three of the models have cylinder grippers, so that sheets are fed to the grippers, and a micrometer side guide. Two of these models are equipped with Automatic Inkers.

709

Write for specific details and prices

THE CHALLENGE MACHINERY COMPANY

Office, Factories and Show Room: Grand Haven, Mich.
Over 50 Years in Service of the Graphic Arts

DEALERS IN ALL PRINCIPAL CITIES

Challenge
TRADE-MARK ®

2,594,705. CONTROL FOR STACK SUPPLY AND STACK DELIVERY FOR PRINTING PRESSES, and particularly sheet-fed lithographic offset presses, includes relatively movable main and offset cylinders which are engaged under pressure while a sheet is present therebetween. Stack supports supply sheets to the cylinders and receive printed sheets as they are discharged. A stack feeler is operable by removal of sheets from the top of the stack to render the stack elevating means effective to raise the stack support. Two circuits render the stack support elevation means effective or ineffective, as desired. Invented by Roy F. Aberle, Portland, Me. Assigned to Southworth Machine Co., Portland, Me. Original application September 20, 1946; divided and this application April 9, 1948. 4 Claims.

Miscellaneous

2,591,043. POWDER SEPARATOR AND DISPENSER is for use in applying or dusting powder onto a web carrying raised wet printing. It uses a centrifugal separator, the flow of powder being controlled by a valve which has an inlet in its upper side adapted to receive powder from the separator. There is a recess in the bottom side of the valve block in communication with the inlet. The bottom side of valve block lies in a horizontal plane and the recess is circularly arcuate in cross section and subtending an angle of not more than 180 degrees. A dispensing valve is mounted to rotate through the recess, and it includes spaced radial fins forming a plurality of receiving pockets. The fins are spaced from the wall of the recess to allow passage of air into separator through the recess and the inlet. Invented by Richard F. Berndt, Racine, Wis. Assigned to Virkotype Corporation, a corporation of Virginia. Application April 19, 1947. 4 Claims.

2,593,738. PADDING RACK FOR PAPER STOCK is in the form of a rack which is pivotally supported on a movable base so that it is capable of being loaded from one side, which is open, and affording racking or guide doors on the opposite side, against which the stack is arranged and properly aligned. The rack can be opened or swung back to expose the secured stacks for gluing. Adjustable clamps are used for securing stacks of varying heights. Invented by Kenneth J. Dollahite, Fort Worth, Tex. Unassigned. Application March 24, 1951. 8 Claims.

2,594,348. RUBBER COVERED ROLL used in offset printing machinery is for the application of liquid materials and has stability and resistance to deformation during use. Its surface has a high degree of porosity, a uniform texture and a high absorptive capacity for liquids. The roll comprises a shaft, a solid inner bulb rubber layer and an outer sponge rubber layer surrounded and united with the inner layer. The outer layer has a plurality of channels formed of pores. Invented by Joseph Rockoff, Dayton, O. Assigned to the Dayton Rubber Co., a corporation of Ohio. Application January 18, 1947. 3 Claims.

Plate Making

2,590,857. PHOTOGRAPHIC CARBON TISSUE is for use in the manufacture of photographic silk screens. Method of production comprises the provision of a carbon tissue having a backing of an opaque fibrous material and a thin layer of an unsensitized soluble colloid thereon capable of being sensitized with a light-sensitizing agent. The face of the colloid is covered with a thin adherent film of a wax-adherent material permeable to the light-sensitizing agent, the colloid is sensitized through the film, the sensitized colloid is exposed to an image through the film, the film side of the colloid and backing are applied to a waxed surface, and the backing is stripped off while the film is adhered to the waxed surface and colloid is adhered to the film. Invented by John F. Hansman and Melvin J. Jurisch, Chicago, Ill. Said Hansman assignor to said Jurisch. Application September 10, 1945. 11 Claims.

2,592,546. PHOTOENGRAVING. A hard, adhesive, acid-resistant, water-immiscible, waxy protective material is disclosed for use in the acid-reetching of half-tone photo-engraved plates. The material comprises a major proportion of candelilla wax, carnauba wax, and a minor proportion of rosin and beeswax. The ratio of the candelilla wax to the carnauba wax and the ouricury wax together is at least 2:1. Invented by Alfred E. Dirkman, Waban, Mass.; Agnes M. Dirkman, executrix of said Alfred E. Dirkman, deceased. Unassigned. Application June 10, 1947. 14 Claims.

2,592,693. ETCHING APPARATUS. The developing and etching apparatus provides a device for spreading a mordant or etching fluid upon coated metal

● A thing worth doing at all is worth doing well. That's the way leading stereotypers feel about halftone reproduction . . . that's why they use BURGESS MATS. The super-smooth face of BURGESS MATS assures faithful pick-up of every halftone dot . . . even the most minute . . . and clean release of the plate in casting.

The result is subtle gradation of light and shadow—halftone reproduction that rivals the original!

BURGESS CELLULOSE COMPANY
Manufacturers and Distributors
of Burgess Chrome and Tone-Tex Mats
Freeport, Illinois

A Laboratory Product
BURGESS
Chrome
MATS

plate used in deep etched lithography. The device comprises a sink having a centrally disposed etching table, a carrier which is mounted on the sink for reciprocating movement above the table and a table engaging brush mounted beneath the carrier for circular movement. Etching fluid flows on the table in the path of the brush and a prime mover on the carrier actuates the brush. Invented by Raymond F. Hayms, Cincinnati, O. One-half assigned to J. T. Peiper, Cincinnati, O. Application April 24, 1950. 7 Claims.

2,593,216. AUTOMATIC DIAPHRAGM CONTROL SYSTEM is for use in half-tone camera work. It is capable of being set to effect a complete cycle of successive exposures at a plurality of successive lens stop positions, each with its proper predetermined exposure time, without the attention of an operator. It includes a master-plate which is automatically responsive to presetting of a device associated with the master-plate at the relative size of the copy and its reproduction, so as to give the proper lens stop for each of the successive exposures. This push-button control device may be applied as an attachment to half-tone cameras of conventional form so as to convert them from manual or continuous exposure control operation to automatic control. Invented by Max H. Sussin, Chicago, Ill. Assigned to R. R. Robertson Co., Chicago, Ill. Application July 10, 1950. 21 Claims.

Printing Presses and Equipment

2,591,613. INKING MECHANISM includes a fountain and a fountain roller. Two ratchets of equal diameter, but having different numbers of teeth, rotate the roller. A pawl is selectively operative to drive either ratchet, and the press may be shifted into non-printing position to reduce the reach of the pawl. This enables the operative engagement of the pawl with the ratchet having the greater number of teeth, but not the other ratchet. Invented by William C. Rupp, Parma, O. Assigned to the Chandler & Price Co., Cleveland, O. Application May 3, 1947. 7 Claims.

2,591,941. MULTICOLOR PRESS. A device for applying a coating liquid in predetermined pattern to the face of sheet material comprises a support, a mold plate provided with a plurality of depressions representing the desired pattern formation reciprocably carried by the support. A liquid flow control valve is operatively connected to the coating liquid supply means and also in communication with each of the depressions. An operating member for the valve extends into the interior of each of the depressions and below the face of the mold plate whereby the valve is actuated by the contact of the operating member with sheet material upon downward reciprocation of the mold plate. Invented by Sydney M. Innerfield, Brooklyn, N. Y. Unassigned. Application January 14, 1950. 6 Claims.

2,593,118. APPARATUS FOR PRINTING NEWSPAPERS AND THE LIKE uses a conveyor and a plurality of printing presses arranged in a row in uniform spaced relation lengthwise of the conveyor. The presses have perfecting printing means including printing cylinders disposed directly above the conveyor and adapted on rotation thereof for printing a plurality of pages on successive sheets at predetermined timed intervals. Sheet delivery means rotate with each printing cylinder. The presses are driven continuously in synchronism by a drive that includes means associated with the conveyor for intermittently advancing the same, in the intervals between the successive printing of the sheets by presses, a predetermined amount to receive in superposed succession one printed sheet from each press. Invented by William W. Davidson, Evanston, Ill. Assigned by mesne assignments to Davidson Corporation, a corporation of Illinois. Application May 16, 1947. 5 Claims.

2,593,344. DOCTOR BLADE MECHANISM is for a printing press having a printing roll. The doctor blade is for regulating the depth of ink carried by the roll. A doctor blade shaft rotatably mounts the blade on a portion of a carrying member and a second shaft, spaced from doctor blade, pivotally supports the carrying member. The doctor blade is thus mounted so as to be selectively adjustable about the axes of both of the shafts into selected doctoring relation to the printing roll. The blade is adjustable toward and away from second shaft. Invented by Ralph R. Richardson, et al, Chicago, Ill. Assigned to United Biscuit Co., a corporation of Delaware. Application August 20, 1945. 2 Claims.

2,593,713. PLATEN-BED PRESS FOR SIMULATING CYLINDER PRESS PRINTING. The object of this invention is to so associate the platen and

NOW!

TWO ROUSE TIME-SAVING

PLATE SAWS

With Exclusive Automatic Feed

For Photoengravers, Stereotypers, Printers

No more manual squaring up, guesswork alignment, tacking, scoring, beveling, trimming, removing burrs, using wedges. That's how a Rouse Plate Saw soon pays for itself.

Just make 4 quick, easy, automatic saw cuts and your plate is ready for the printer. The *exclusive* automatic feed guarantees each cut to be perfectly square, smooth-edged and uniform on any copper, zinc, magnesium or plastic plate, whether wood or plastic mounted or shellcast.

Cuts are made to Picas, Points, Quarter Points or Inches as required. Outside Mortising is effectively done to pica and point measurement.

NEW 24" MODEL—automatically cuts up to 24" of type-high work in only 27 seconds.

15" MODEL—identical to 24" Model except it automatically cuts up to 15" of type-high work in only 17 seconds.

BOTH MODELS occupy only 26" x 26" floor space.

NEW FEATURES (*on Both Models*)

1. Now you can make *cuts as small as 1 Pica square* for signatures, key letter or number changes, etc.

2. *Narrow Cut* measures about 2 points (.028"), permitting cutting between type lines.

3. Saw blades are changed in just 1 minute due to new lever-operated tension release. Blades stay sharp during 30-40 hours continuous operation. New blades are inexpensive.

4. New simplified gauge adjusting device makes it easier to maintain perfect squareness in cutting.

DESIGNED BY MEN WITH 25 YEARS KNOW-HOW IN BUILDING SAND SAWS FOR PRINTERS

Write for complete details TODAY!

H. B. ROUSE & COMPANY
2214 North Wayne Avenue, Chicago 14, Illinois

ROUSE PRODUCTS...The Standard of the World Since 1899

Now... more than ever it pays to go Blatchford!

With costs shooting upward, you don't want to overlook any item on which you might save money.

Take your metal stock, for example. If its operation is costing you too much, now's the time to switch to Blatchford Metal.

With Blatchford you get a clean, solid cast. That's because Blatchford Type Metal melts smoothly, flows freely, molds sharply.

With Blatchford you get type, slugs, and plates that are true to the mold. Blatchford has the fluidity to "get" all detail in the mat or matrix.

With Blatchford you get long, steady press runs. Blatchford Metal has the strength and toughness to stand up under rugged treatment.

What does this add up to... and mean to you?

It adds up to fewer imperfect casts, fewer machine and press stoppages. It means your staff and costly equipment can operate to capacity.

It means, with Blatchford on the job, you get maximum production at lowest cost. Buy Blatchford and get top metal performance.

➧ **Free chart for re-melt rooms** tells, step by step, how to keep metal "healthy" and *cut dross loss* with Blatchford Type Metal Flux. Just write, Box PE-7, the office nearest you for "Re-melt Chart."

NATIONAL LEAD COMPANY—Atlanta, Baltimore, Chicago, Cincinnati, Cleveland, Dallas, Philadelphia, Pittsburgh, St. Louis; New York: E. W. Blatchford Co.; New England: National Lead Co. of Mass., Boston; Pacific Coast: Morris P. Kirk & Son., Inc., Los Angeles, Emeryville (Calif.), Portland, Seattle; Canada: Canada Metal Co., Ltd., Toronto, Montreal, Winnipeg, Vancouver.

Blatchford

is the NATIONAL name for dependable metal...

*Reg. U. S. Pat. Off.

VARNISHING... *at High Speed* *lifts production and profit!*

The Christensen Varnisher with continuous stream feeder

Varnishing — of labels, covers, promotion pieces, etc., raises your profit on any job on which it is used • The Christensen operates at almost double the speed of other varnishers • Sheets are fed in at top of cylinder, with guides, registers, etc. in clear view and easily reached for adjustment. Misfed sheets are carried to reject tray without stopping machine or slowing production and sheets are under gripper control from feed-in to delivery • Dusting roller cleans sheets before varnishing and keeps fountain dust-free • Sheets pass through drying oven in two layers, one above the other, at one half the speed of the varnishing operation • Oven is shorter, saving space. There are no flames in the oven, hot air being supplied by heaters outside of it • At each step, these Christensen features make for speed, high production, easy control, clean work, fast drying and better delivery • The Christensen Varnisher is sold as complete unit: feeder, varnisher, oven and delivery, thus centering responsibility for proper coordination of operating units upon a single source • Write for literature.

Dexter Folder Company

General Sales Offices

330 West 42nd Street • New York 36, N. Y.

Chicago • Philadelphia • Boston
Cleveland • Washington • St. Louis

type bed as to have a progressive operative contact over the face thereof instead of the simultaneous facial contact customary in a platen bed press. Two frames are mounted for relative movement toward and away from each other, and they support a printing couple including a platen and a bed. The face of one member is convexly curved. One end of printing couple oscillates about a fixed axis, and retractible means positions the free end of the oscillatory member when frames are brought together, such contact progressively continuing toward the pivoted end of the oscillatory member. Invented by Harry B. Willett, Indianapolis, Ind. Unassigned. Application July 12, 1945. 8 Claims.

2,594,214. ROLLER TRIP FOR PRINTING MACHINES includes an axle mounted rotatably and eccentrically in the trip which itself is mounted eccentrically and rotatably adjustable in the machine frame. Ball bearings are provided at the ends of the axle, as is a roller with pins. A seat member is screwed to a pin and connected to the ball bearings for eliminating any radial and axial play between the bearing and roller. The bearing at one end of the roller has axial play for accommodating thermal elongations in the length of the roller. The ball bearing has an inner race mounted eccentrically on the axle. Invented by Max Ras, Zurich, Switzerland. Unassigned. Application April 5, 1949; in Switzerland November 22, 1948. 5 Claims.

2,595,070. INK TRANSFER DEVICE has two rollers and an ink reservoir. Rollers are movable with respect to each other in opposite angular directions. A scraper engages peripheral and end surfaces of one roller, said scraper and the other roller being mounted on the support for the other roller. Adjustment of the roller supports controls separation of the peripheral surfaces of the rollers and the scraper from one of the rollers for determining the amount of ink transferred to the other roller. Two additional scrapers engage end surfaces of the roller at a part angularly displaced from the planes of the axes of rotation of the roller to prevent ink transfer from end surfaces to peripheral surfaces of roller. Invented by Eugene Garrahan, Harrison, N. J. Assigned to Radio Corp. of America, a corporation of Delaware. Application March 2, 1948. 6 Claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D.C.

.176? .147? .165? .152? .140? .169? .180? .145? .129?

What gauge?

Only Your Press and conditions can determine it . . . but regardless of the gauge required,

TINGUE, BROWN

has it, between .012" and .120"

Check this complete line of press packing which offers the proper gauges or combination of gauges for every press condition.

COMBINO—An extremely durable clean printing laminated blanket. Gauges .062", .083", .093".

"TINGUE" COATED FELT — For those who prefer a softer packing. Gauges .083", .093".

UNCOATED WOOL FELT — Gauges .063", .072", .083".

TOP Drawsheet is firm, durable, economical and of long life. Gauges .016", .025", .030".

GOLD TYMPAN Drawsheet — An old favorite for flat bed presses. Gauge .012".

IMPROVED SATISFACTION — A fabric impregnated with "Neoprene" and coated with "Calvaprene." Gauges .024", .026", .030".

STERLING — The latest plastic drawsheet. Gauge .025".

CUSHION CORK* —A highly resilient underpacking. Gauges .059" to .085".

TINGUCORK* — Much firmer than "CUSHION CORK" and preferred where precision plates are available. Gauges .032", .055" to .086".

KORKER*—Under Blanket for older type presses or where an unfavorable mechanical condition exists. Gauges .058" to .070".

FOUNDATION—A firm, durable oilproof under packing laminated by duPont with "Neoprene." Gauges .032", .040", .053" to .085", .120".

*Reg. U. S. Pat. Office

TINGUE, BROWN & CO.

723 E. Washington Blvd., Los Angeles 21, Cal. PRospect 6023
507 Bishop Street, N. W., Atlanta, Ga. ATwood 3864
1227 Wabash Avenue, Chicago 5, Ill. HArrison 7-0083
1765 Carter Avenue, New York 57, N. Y. CYpress 9-8800

Canadian Sales Agents:
ROSS WHITEHEAD & CO., LTD. —— MONTREAL, CANADA

ABC of Offset

(Continued from Page 50)

tion of placement of the various elements comprising the original copy.

The copy is then released to the commercial art department where the color overlays are removed and carefully filed away for future reference. Wherever practical, notes for specific requirements are made, and the tonal values of the several separations are determined. This information with the original art work is delivered to the cameraman.

The skill, experience and artistry of the photographer now comes into play.

With our imaginary copy being a composite of various elements, the cameraman must exercise extreme caution in each of the procedures which follow.

First, the line shots.

Although the hand lettering on the copy is black on white, the color overlays indicate that the lettering is to be printed in color. The body text, however, is to be printed in black only, as will also some portions of the illustrative material which is drawn in line rendering.

Since all of these elements cover the entire area of the original including all reference marks, the cameraman will make one overall exposure negative, which will serve as the master for all subsequent layout and stripping operations.

From this negative, the cameraman will make contact positives, or additional negatives of the lettering which is to be printed in color.

With these operations completed, the cameraman installs the designated halftone screen of proper ruling. The operator then makes the simple halftone exposures of the wash drawings which are to be reproduced in black ink only. This negative or group of negatives will contain all

Cut Your Downtime
on mill roll changing
to 1 Minute or Less
with the **NEW B&S**

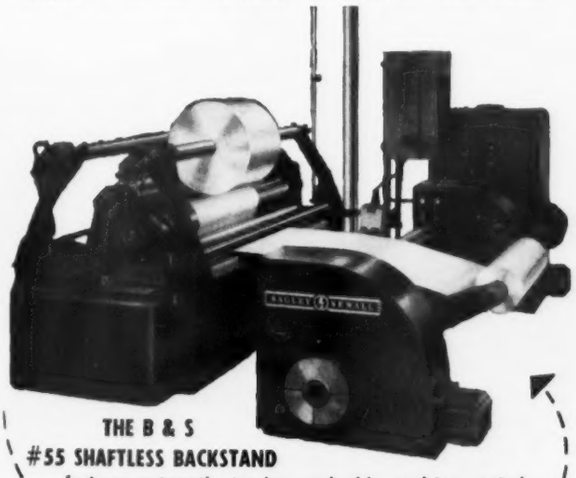
SHAFTLESS BACKSTAND

Money-consuming downtime on mill roll changing is cut to the bone by the wholly automatic B & S Shaftless Backstand. Here is what Mr. C. Carr Sherman, President of H. P. Smith Paper Co., has to say about this equipment:

"The engineering of this new unit indicates a fine understanding of the problems of the users of this type of equipment. The Backstand is much easier to handle as there are no shafts. It is also much easier and faster to make changes on it. I believe that changing rolls with this Backstand can be brought down to well under one half minute."

You may purchase the B & S Shaftless Backstand with or without the new B & S Slitter and Rewinder. The Backstand may be used on any type of rewinding equipment, as well as on waxing and laminating machinery, printing presses, etc.

For full details on the Shaftless Backstand and the new B & S Slitters and Rewinders, write to The Bagley & Sewall Company, Watertown, New York.



THE B & S
#55 SHAFTLESS BACKSTAND
features automatic tension and side register control; motor for raising and lowering mill roll arms, also motor for moving the arms to accommodate different width rolls. Entire working mechanism is totally enclosed.

BAGLEY & SEWALL

designers and builders of

QUALITY MACHINERY
SINCE 1853

WATERTOWN, NEW YORK

Foreign Representative CASTLE & OVERTON, INC., 630 Fifth Avenue, New York 20, N. Y.

when Good make-ready is called for...

don't say "Tympan."
say "CROMWELL"

With Cromwell Special Prepared Tympan, your make-ready troubles are over. It's *extra* hard. Every sheet is uniform throughout. Cromwell Tympan has amazingly high tensile strength and absolute resistance to oil, moisture and atmospheric changes. With Cromwell you get clean, sharp impressions every time. And it's UNCONDITIONALLY GUARANTEED!

Cromwell Paper Company
4801 South Whipple Street
Chicago 32, Illinois

I'd like to try Cromwell Tympan. Please send me a sample sheet. No obligation, of course.

Name .....
Firm Name .....
Address .....
City ..... Zone ..... State .....
Press Make ..... Top Sheet Size .....
(check)—Square cut ☐ Clipped, scored ☐

Try Cromwell Yourself! Fill Out This Coupon For a FREE Working Sample—

CROMWELL PAPER COMPANY
4801-39 South Whipple Street, Chicago 32, Illinois

many register and reference marks as can be economically included.

By following closely the noted information pertaining to the fake color reproduction of the photographic illustration, which is of rather commonplace tonal value, the cameraman utilizes ordinary orthochromatic film for the negatives.

By varying the time of exposure and development, and by using other chemical expedients, the cameraman produces a set of halftone separation negatives, which he delivers to the commercial art department with a suitable photoprint copy of the original artwork.

The cameraman, by photographic means, has enabled the two vital reproduction departments—Layout and Stripping and Commercial Art, to function simultaneously on the same job, thus speeding up the reproduction operations of the job under consideration.

How It Works

The layout department, having received the line and black and white halftone negatives from the cameraman, is able to prepare the negative material by assembly and stripping, for subsequent contacting to positive form, which will be needed for the making of deep etch plates. Where required, mechanical screens are stripped into position.

With the foregoing operations completed, the layout man makes the general layout for the final production of the printing plate.

The Art Department Functions

By chemical reduction and intensification of certain areas of the respective separation negatives, the tonal values are adjusted or altered to effect the color values desired in the finished impressions. When the chemical manipulation has reached its maximum processing, the negatives are dried and made ready for additional hand work if necessary.

Where additional intensification is indicated, the artist has recourse to the use of dyes or stains, water color pigments and an air brush, or to a mechanical shading device such as the benday machine.

Contact masking can also be utilized, as a means to subdue or eliminate certain undesirable areas and details.

Throughout these operations it is evident that the combined skill and ingenuity of the artist and cameraman are a prime requisite, if the most pleasing results in the reproduction are to be attained.

The color separation negatives, fully corrected, masked and opaqued are released to the layout man, who inserts the negatives in their respective color assemblies or flats.

The Cameraman Again

Stripping of the color flats completed, the negative assemblies are released to the cameraman who makes the final contact positives from which the deep etch plates will be made. These, the cameraman releases to the color artist for final inspection and possible correction.

Final Approval Necessary

The color artist carefully examines the color elements of the entire set of color positives, checking them against the original overlays and the preliminary notations. If the set merits, the artist gives his final OK and releases the set to the layout man for his approval.

The layout man checks the positives against the original layout for correct size, dimensional stability and cleanliness of the positives. It must be remembered that any dirt, dust, fingerprints or other defects will be reproduced in the final printing plate, if they are permitted to remain in the positive. They will also be evident in the final impression or printed sheet.

When the layout man gives his final approval, the positives are released to the platemaker for the production of the deep etched plates, thus completing the third tracing of Workflow Pattern No. 3.

Summary

The examples presented here are only a few of the many deviations possible and associated with offset reproduction. No matter how many deviations in procedures, they all follow some one or all of the workflow patterns described and traced. It is not intended or implied that any single one of the procedures is a

Sheer Power

MONOMELT POWER SHEAR!

Accurate
Fast
Strong
Economical

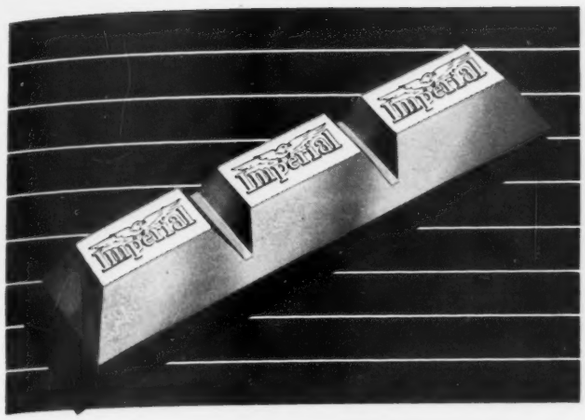
● Cuts and trims copper, zinc and plastic plates . . . electrotypes, stereotypes. The Monomelt Power Shear is rugged and strong. Built for heavy-duty day-in, day-out service. Hardened tool steel cutting blades make clean, straight cuts. Saves time! Completely eliminates burrs! Speeds production! Equal to three saws. Cuts and trims up to 24" wide.

Maximum safety and protection. No flying metal chips . . . no dangerous whirling saws. Non-repeating foot-operated clutch.

Monomelt Power Shears are still available. See your dealer or write for complete information.

THE MONOMELT CO., Inc.

1611 N. E. POLK ST. • MINNEAPOLIS 13, MINN.



For Better Printing Faces Rely on Imperial TYPE METAL SERVICE

● Imperial Type Metal Company originated and pioneered many essential services for type metal users.

Periodic Analysis Service plus detailed laboratory reports to assist Imperial users in maintaining, from day to day, proper and uniform casting quality of their metal supplies. (Originated by Imperial.)

Personal Counsel and assistance from Imperial representatives, men who are type metal specialists of long experience and whose interests are your interests because they serve the graphic arts *exclusively.*

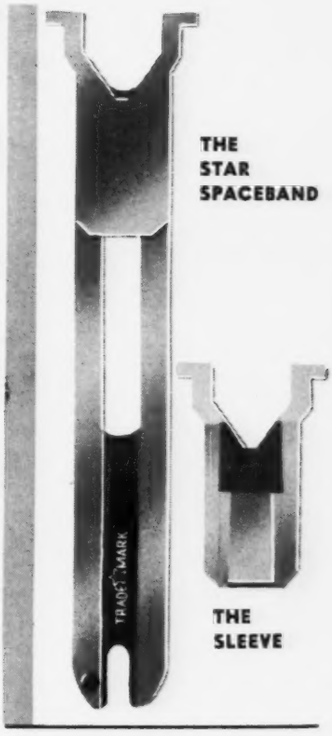
Plus Metal Service, consisting of adjusting alloys of proper formula to restore the working supply of type metal to full efficiency. Furnished pound-for-pound in exchange for customer's dross. (Originated by Imperial.)

Dross Drum Service through which shipping containers are supplied, without charge, for the convenient accumulation and exchange of customer's dross for equivalent weight of adjusting metal. (Originated by Imperial.)

Type metal users readily recognize the importance and the value of services such as these. By taking advantage of these services, Imperial users eliminate the expense extras and headaches involved in keeping metal supplies in proper working condition. They save machine down-time and other production losses. An Imperial Type Metal Man is ready to assist you on your type metal problems at any time. Write to nearest address below.

Imperial
TYPE METAL COMPANY
SERVING THE GRAPHIC ARTS *Exclusively*
PHILADELPHIA 34 • NEW YORK 7 • CHICAGO 50

YOU DON'T HAVE TO BE A MECHANIC TO REPAIR A "STAR" SPACEBAND! ★ ★ ★



An original method for precision grinding of the dovetail, engineered by LINOTYPE PARTS, permits interchangeability of sleeve and wedge never known before—NO FITTING REQUIRED.

This means that you can maintain your Spacebands at considerably lower cost by buying either wedge or sleeve to replace broken or damaged parts. No waste with "STAR" Bands.

"STAR" SPACEBANDS have been the standard of perfection in the linecasting machine field for over a quarter of a century—noted for consistent accuracy and fine finish.

"STAR" SPACEBANDS are made in six standard thicknesses to mix with those you have in your machines.

PRECISION
TRADE ★ MARK
LINOTYPE PARTS COMPANY
INCORPORATED
Factory and Main Office
SOUTH HACKENSACK, N. J.
Branch Office: 1327 BROADWAY, KANSAS CITY 6, MO.
CHICAGO • MINNEAPOLIS • DENVER • NEW YORK • BOSTON

limitation to the production of any one particular job or assignment.

The production workflow patterns are applicable to any procedure, whether it be specialized in nature or diversified to a high degree.

In the next chapter we'll visit a layout department and observe some of the features, fixtures and actual operations.

(To be Continued)

Advertising Production

(Continued from Page 38)

advertisements for color printing in newspapers can be prepared to secure best results. He also discussed at some length how newspaper r.o.p. color is handled in the pressroom of the Cleveland *Press*. His was an extremely practical discussion prepared in a helpful way from the viewpoint of the pressroom.

Unsatisfied with Color

During the discussion period which got under way immediately after the conclusion of Mr. Brannon's address, an advertising agency production manager complained about the lack of color match in newspaper r.o.p. advertising, particularly in the case of packaged goods.

Earl Weiskittel, Pressroom Supt. of the Youngstown (O.) *Vindicator*, replied by saying that in some instances there are too many shades to match in a package where it is desired to reproduce colors similar to that which the advertiser uses on his package.

The agency production manager stated the agency men are not satisfied with the color they have been getting. He complained rather bitterly that "double" shrinkage in mats has not reproduced consistent four color reproduction in newspapers. He asserted that until newspapers eliminate shrinkage they won't get anywhere in reproducing acceptable color printing. High shrinkage, he intimated, ruins fine halftone printing by reproducing too fine a screen in the printed paper which fills in interstices and results in muddy printing.

He also asserted that the newspapers which shrink their stereotype mats the most do the worst printing. He insisted he had measured the width of reproduction tear sheets sent to his agency in which the shrinkage ranged from 1 in. to 2 in. in 14 in. or across a 7 col. advertisement.

Mechanical Executives Reply

From this point on, a number of mechanical executives devoted a considerable amount of time in explaining that blame for unsatisfactory color reproduction and printing be laid at the door of high mat shrinkage is fallacious. It was pointed out that in spite of progressively increased shrinkage, newspapers are printed much better today than they were a number of years ago.

Leslie J. Griner, Production Mgr. of the Detroit *News*, explained meticulously that halftone dots run in lines diagonally or at 45 deg. to the base. In a 65 line halftone, the dots do count to 65 in a diagonal line but do not amount to that number when counted at right angles. "Distortion," he said, "even in high shrinkage reproductions are not visible to the human eye." Griner also said that many newspaper executives use shrinkage as a whipping boy for their failure in doing good work. In support of his statements, he said that at the Detroit *News* last year only $220 refund had been made to advertisers for unsatisfactory reproduction. He concluded his remarks by saying: "It is up to us to do a better job of printing with high shrinkage, because high shrinkage is here to stay."

ANPA Mechanical Dept. Mgr. Vernon R. Spitaleri advised the agency production manager that there is no such thing as "double shrinkage." It is true, however, that in the case of small advertisements the stereotype department may make a flat cast from the original plate in order to get it into a 1 col. or 2 col. width.

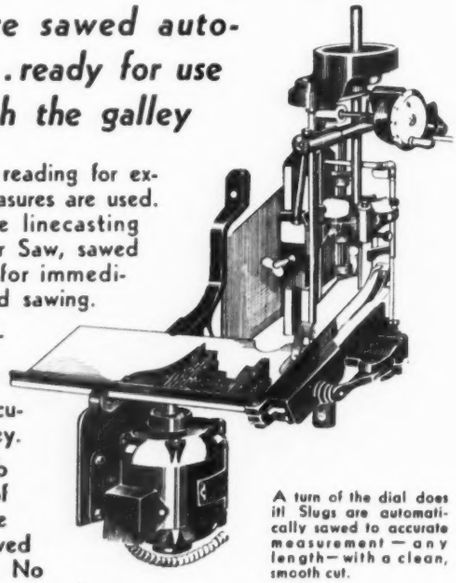
He also stated that advertising agencies can help those concerned with reproducing their plates if they will furnish plates made to specifications especially for newspaper production. There is some basis for the complaint frequently mentioned by newspapers that the plate is shallow and is not of proper depth for stereotype reproduction.

Mr. Dalgin mentioned that cleaning house (perhaps referring to methods and procedures) will produce better results.

THE BEST TIME SAVER

YOUR COMPOSING ROOM EVER HAD!!!

Slugs are sawed automatically...ready for use as they reach the galley



A turn of the dial does it! Slugs are automatically sawed to accurate measurement — any length — with a clean, smooth cut.

Take the ad you are now reading for example. Twelve different measures are used. Every slug came from the linecasting machine, through the Mohr Saw, sawed automatically and ready for immediate makeup — without hand sawing.

A turn of the dial sets left-hand vise jaw, assembler and Mohr Saw to any measure—and you get an accurately sawed slug in the galley.

On ads, catalog pages, job work, form work, corrections of all measures—a turn of the dial gives you a finished, sawed slug ready for instant use. No hand-sawing needed, no floor saw detour.

Think what that can do for you!

Why do it the hard way when you can Mohr Saw it for so little?

Write for booklet, "Any Measure." It shows how the Mohr Saw pays.

A Turn of the Dial Does It!

MOHR LINO-SAW CO.

126 N. Union Ave. Chicago 6, Illinois

The **M•A•N**

MAT MOLDING AND SPACE PACKING PRESS

- Molds and packs a mat in less than 30 seconds
- Molds the mat to a more uniform thickness
- Eliminates stretch and distortion
- Meets high shrinkage requirements without sacrifice of quality

SEE IT IN OPERATION IN NEW YORK!

Write, wire or telephone MU 6-1700. Ask for Mr. Fritschi

PARSONS & WHITTEMORE, Inc.
10 EAST 40th STREET, NEW YORK 16, N. Y.

Platemaking Bulletins . . .

For Graphic Arts Industry

PLATEMAKING GROUP

- **Electrotyping in the Government Printing Office, No. PL-2.** Includes specifications, procedures, techniques and formulae used by the GPO in preparing all kinds of electrotypes.
- **Basic Requirements for Electrotypes.** Information for the customer, photoengraver, compositor and electrotyper in producing a good plate.
- **Magnesium Plates, No. PL-1.** Contains data and experience on the use of magnesium plates in the letterpress field.
- **Plates, No. CONF-1.** A report containing the proceedings of the conference on printing plates held at Battelle Institute, Columbus, O., February 1950.
- **Photoengraving Specifications Manual.** Specifications for the production of photoengravings to aid in improving quality and cutting costs and waste.

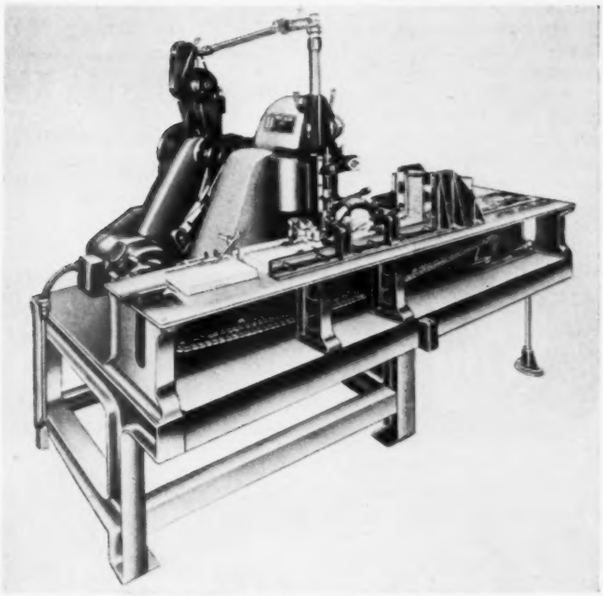
Price for set . . . $4.00

RESEARCH AND ENGINEERING COUNCIL of the GRAPHIC ARTS INDUSTRY

719 Fifteenth St., N. W. Washington 5, D. C.

Books Sewn This Way are Much Stronger

. . . and cost less to produce!



The McCain Book Side Sewing Machine

This machine produces much stronger, much more rugged books • Its normal operating speed is 250 one inch stitches per minute • Books more than ¾" thick are drilled half from above, half from below • Drill chips are removed by vacuum. Single thread is used, lubricated with liquid soap • As book is sewed, bottom row of stitching is tightly glued for extra strength • End sheets and reinforcing strips are sewed right in. Separate color and halftone pages are jogged and sewn into the complete unit • Machine is easily adjusted, cleaned and lubricated.

Estimated production in number of books*

Thickness	Books per hour	Thickness	Books per hour
3/16 to 3/4"	1,000	1-1/2"	600
7/8"	900	1-3/4"	500
1"	800	2"	400
1-1/4"	700		

****Based on books 8½" long and untrimmed***

Write for brochure telling more about this method of producing much stronger books and at the same time raising production and reducing binding costs.

Dexter Folder Company

General Sales Offices

330 West 42nd Street • New York 36, N. Y.

Chicago • Philadelphia • Boston
Cleveland • Washington • St. Louis

At the New York *Times*, a change from 65 to 60 lines halftone screen is being made.

When asked from the floor what he meant by distortion in newspaper reproduction, Mr. Dearnley said he meant the reproduction of a product in which the advertiser has set style lines and which is distorted in the reproduction process. Mr. Dearnley also plead for standardization of production and reproduction techniques on a *national* basis.

George Woodman, Mechanical Supt. of the Ft. Worth (Tex.) *Star-Telegram*, complained of the omission of register marks in national advertising plates. So far as he is concerned, a register marks approx. 1/8 in. diam. in a set of color plates would be satisfactory. Mr. Dearnley asked: "Has it ever occurred to you to bill the agency for the work involved in supplying the register marks?"

Joseph E. McMullen, Production Mgr. of the Milwaukee (Wis.) *Journal*, stated that a great many reproduction troubles would be eliminated if the agency would furnish good edition mats together with honest proofs on newsprint.

ANPA Conference

(**Continued from Page 33**)

made by journeymen in the various crafts."

"Briefly, here's how our suggestion system works: Placed in a dozen strategic positions around our plant are suggestion blanks and suggestion boxes. When an employee has an idea, he takes a blank and jots down his suggestion. On a slip that is perforated, he records his name and department and then places the form in a suggestion box. These are picked up twice a week by the suggestion system secretary who detaches the name so that he, and he alone, knows who turned in the suggestion. This saves the suggestor embarrassment if he is turned down and makes for an impartial study by the investigator. If the idea is turned down for a good reason, the suggestion system secretary, who is a member of our personnel department, completes the two-way communication by relating the reasons for rejection to the suggestor. It usually consists of information he could not previously have about company policies and practices. That man goes back to work feeling better because someone thought him important enough to explain things to him, and you can bet he looks for new means of improvement and additional suggestions. The mere fact that he tried to solve a vexing problem for us makes him an operating member of the departmental team.

"If his idea clicks, he not only gets the immense satisfaction of having contributed something worthwhile, but he has something more tangible to show for his conscientiousness and enthusiasm in the form of a cash award. We adopt about 20% of the suggestions we receive."

Mr. Copeland also explained: "You'd be surprised how many suggestions come in without any thought of receiving a reward. Many are signed: 'Give my reward to the Red Cross,' or 'If this suggestion wins an award, give the money to the pressman's flower fund.'

"We pay each suggestor whose idea is adopted an award based on the value of the suggestion. Roughly, our yard stick is 10% of the first year's gross savings. When it isn't possible to measure the savings, the award committee determines the amount of the award based on its relative merits. They consider whether its application is local in one department or general throughout the plant, if it is a major or a minor improvement, etc."

Ink Mist Control and Other Pressroom Topics

On the afternoon of Tuesday, June 10 the Pressroom session of the ANPA Mechanical Conference got under way. For this meeting, Production Mgr. Leven T. Deputy of the Dallas (Tex.) *News* and Edward Conley, Pressroom Supt. of the San Francisco *Chronicle* presided as chairmen.

A system for the almost total elimination of ink mist, anti-offset spray and paper dust from the air of pressrooms in newspaper printing plants and commercial printing plants was described to the ANPA by H. Earle Runion, Louisville, Ky., during the Pressroom clinic.

Runion's system (which is already in operation at the Louisville (Ky.) *Times* and the Charlotte (N. C.) *Observer*) uses air ducts, blowers and a special type of

Why do I Like Imperial ?

Ask the router! Imperial not only etches the way good zinc should but--the router can work up close without the metal chipping or breaking away.

With Imperial Register-Redibak
both etcher and router are pleased
with the final result.

Imperial Zinc
A Product of
IMPERIAL TYPE METAL COMPANY
SERVING THE GRAPHIC ARTS Exclusively
PHILADELPHIA 34 • NEW YORK 7 • CHICAGO 50
In Canada: LATIMER, LIMITED, TORONTO 2B

He writes — "IT'S TRUE"

LUVERNE, MINNESOTA

Dear Mr. Baum:

When a Scotchman admits he's happy about money he has spent you'd think the world was coming to an end. But it's true.

I've said it before . . . and I'll say it again . . . *I never have spent any money for equipment that gave me as much solid satisfaction as the money I spent for the Baumfolder* I bought from Barry LaRoche.

We think that we have as *well equipped a shop* as one will find in the weekly field, *modern equipment thruout. We don't think we have a piece of equipment that has made us the money that the Baumfolder has* . . . it has made *terrific savings* for us on *perforating too as well as our folding operations.*

Looking back at how we used to operate before the Baumfolder I wonder how we did it at all.

We take jobs now without batting an eye no matter how urgent the "rush" delivery date may be. The folder will deliver the finished job just a few minutes after the automatics have finished the press run.

Frankly . . . *we don't see how any shop with a normal run of business* and an average printing volume can *get along without a Baumfolder.*

We *don't know* of a *single piece* of *equipment that has given us the high return on invested dollar that the Baumfolder* has made for the Star-Herald. Our only regret is that we didn't buy one long before.

Sincerely,

Alan C. McIntosh
The Rock County *Star Herald*

RUSSELL ERNEST BAUM, INC.
615 CHESTNUT ST. • PHILADELPHIA, PA.

QUALITY - - - *the only factor in selecting a mat*

"Considering all factors," the Publisher asked, "which mat would be your choice?"

"In buying mats," answered the stereo foreman, "there is only one factor to be considered.

"That factor is quality. This business office plan to save on mat purchases may sound promising, but press-time jams and a few soured advertisers would wipe out the "economy." Certified has given us quality, case after case, in war and peace. I am for staying with Certifieds."

For dependable stereotyping, rely on Certified Mats

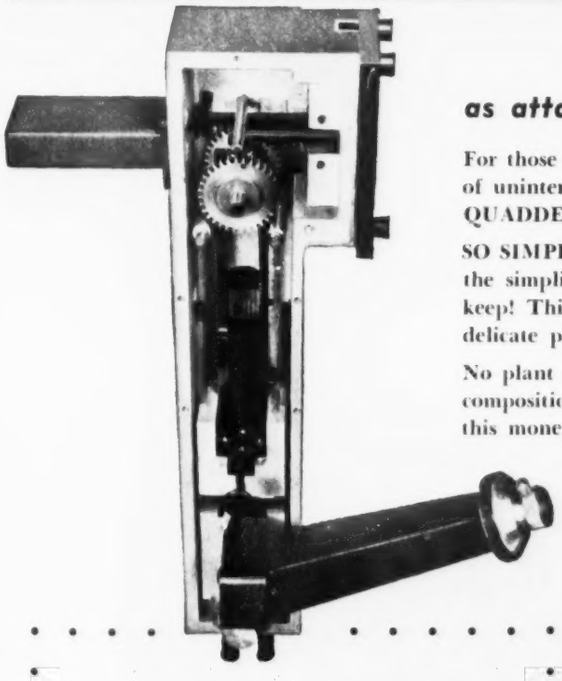
Certified DRY MATS

CERTIFIED DRY MAT CORPORATION, 9 Rockefeller Plaza, Dept. M, New York 20, N. Y.

AFTER 4 YEARS

SEVERAL HUNDRED STAR QUADDERS ARE IN GAINFUL OPERATION

as attachments to Linotype and Intertype Machines



This open view of Quadder shows simplicity and ruggedness of mechanism.

For those who have *feared* quadders *but still need its efficiency,* four years of uninterrupted production now show hundreds of STAR AUTOMATIC QUADDERS repaying the original investment over and over again.

SO SIMPLE, A NOVICE CAN OPERATE IT! Sturdy, mechanically right, the simplicity of its design and operating parts assures practically no upkeep! This means . . . minimum of maintenance time . . . no intricate or delicate parts to adjust and bother either machinist or operator.

No plant that operates a machine 20% of the time (or more) on quadded composition, either center, right or left flush, can afford to be without this money-making device.

The Model "E" brochure tells the complete story.

PRECISION TRADE ★ MARK

LINOTYPE PARTS COMPANY
INCORPORATED
Factory and Main Office
SOUTH HACKENSACK, N. J.
Branch Office: 1327 BROADWAY, KANSAS CITY 6, MO.
CHICAGO • MINNEAPOLIS • DENVER • NEW YORK • BOSTON

RICHARDS' "Electromatic"
SAWS • ROUTERS • MORTISERS
For Flat, Tubular, Curved Plates

A HEAVY DUTY SAW
For Stereotypers—Electrotypers —Photo Engravers.—Two Sizes
PRECISION GAUGES
Instant change to SAW-TRIM
J. A. RICHARDS CO.
Kalamazoo, Michigan

filter. Its basic idea is to suck ink-or spray-laden air away from the press through ducts, instead allowing it to be diffused.

For commercial printing plants and the older type of non-enclosed newspaper presses, Runion's system sucks the air around the presses into ducts, thence to filters. The filtering agent is a kleenex-type of paper. After passing through the filter, air is almost pure and can be returned to the pressroom. In this type of installation, more than two-thirds of the ink-mist, anti-offset spray, dust, etc., has been proved to be taken out of the atmosphere, Runion said. Two ducts are used, leading away from each side of the press, with as many intakes as there are units. The ducts lead to the filter unit.

The filter paper is on rolls, and is unwound clean and rewound soiled. Clean paper weighs 9 pounds per roll; but when used up, a roll weighs 33 pounds, representing the amount of pollution which has been kept out of the pressroom air. Rolls cost about $6 each.

For enclosed newspaper press units, the system is more efficient. By sealing up still more of the openings around press units, Runion said, it has been possible to remove 95 per cent of the misted ink from the air. On the enclosed presses, the action of the blowers serves to create a vacuum around the cylinders, so that instead of leaking out of the press, air leaks *into* the press. Sealing of the openings does not cause the press to heat.

A single filter and blower will serve 8 to 10 press units, Runion said. Installation costs from $1000 to $2000 per unit, and this figure includes preliminary engineering costs.

A sound movie was shown by ANPA Research Director C. M. Flint. This is the one presented for the first time at the ANPA convention, New York, in April. A substantial abstract of the commentary together with a number of illustrations appeared in the June issue of *Printing Equipment Engineer*.

Paul O. Brannon, Pressroom Supt. of the Cleveland *Press*, spoke on *Straight vs. Collect Runs*. This paper appeared in the March issue of *Printing Equipment Engineer*. Its presentation drew undivided attention.

Tingulok, the new method for replacing blankets in newspaper press impression cylinders was discussed by John W. Foster, jr., of Tingue, Brown & Co., New York. The device was exhibited at Tingue, Brown & Co.'s exhibit space during the Mechanical Conference. It is built around the use of Clipper belt lacing and provides a fast method of applying blankets without liability of skinning knuckles. Tingulok is described elsewhere in this issue.

Time ran out on the Tuesday afternoon meeting, which was adjourned to resume on Wednesday morning. At the continuation session, Lester F. Crebassa, Pressroom Supt. of the Seattle (Wash.) *Times*, addressed the session on *Production Economies in the Pressroom*. This short, but excellent, paper will appear in an early issue of *Printing Equipment Engineer*.

Shrinkage Problem Carried Into Stereotype Meeting

The shrinkage problem arose again at the Stereotype session after the stated speakers had finished with their addresses. The meeting was presided over by Charles R. McGuire, Mechanical Supt. of the Minneapolis (Minn.) *Star* and *Tribune*.

Frank Reilly, President, Lake Shore Electrotype Co., Chicago, discussed *Bista Overlays*, which is a method for relieving the printing surface of stereotype plates to bring out maximum printing values in the cylindrical plate. More complete details about the Bista Overlay will be published in an early issue of *Printing Equipment Engineer*.

I. Tornberg, Vice Pres. of Wood Newspaper Machinery Corp., discussed the Autowhirl Saw Hanger for Automatic Stereotype Plate Casting Machines. Toward the end of his address he stated a new design Autowhirl would be made available for Junior Autoplates soon. The device is a means for directing saw trimmings while the beveled edges of a stereotype is being milled into a receptacle. The device is efficient inasmuch as it confines the flying stream of chips in a definite course without permitting metal dust and chips to fly out into the adjacent area.

The next speaker was Henry Messina, Production Mgr. of the Los Angeles *Herald and Express*. His subject was *Stereotype Maintenance and Operation*. This was an excellent paper and will be published in an early issue of *Printing Equipment Engineer*.

During the discussion period, it again became evident that newspaper mechanical executives are split over the question as to whether high shrinkage stereotype matrices permit economy of newsprint consumption at the expense of good printing. Even though a motion was passed during the previous day's session to refer the entire matter of high shrink-

Colors, Slits & Rewinds Paper

On the job conversion makes it possible to reduce inventory—Save upcharges for colors and penalties for narrow rolls.

Solves the problem of obtaining groundwood and newsprint in colors.

PUGLISI-DUTRO, INC.
1206 Maple Avenue
Los Angeles 15, Calif.

MAIL COUPON FOR INFORMATION
Please send further information on the DUTRO COLORVERTER

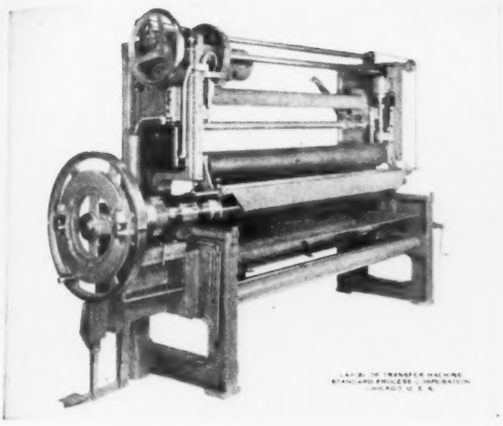
_____
_____
_____

CHECK ON YOUR SUPPLY OF BOOTH'S ZINK CUT CEMENT

We suggest that the hundreds of users of BOOTH'S ZINK CUT CEMENT check on their supply right now. If you are low, get your order in now for this outstanding cut cement for mounting cuts and solidifying type elements for standing ads. If you have never used this famous cut cement, try it. You'll find it mounts cuts quicker and holds them tighter . . . in use all over the country by leading plants.

Prices: 75c per tube, $6.00 per dozen in the United States.

E. A. BOOTH RUBBER CO.
2855 Scarboro Road
Cleveland Heights, Ohio



ROTOGRAVURE

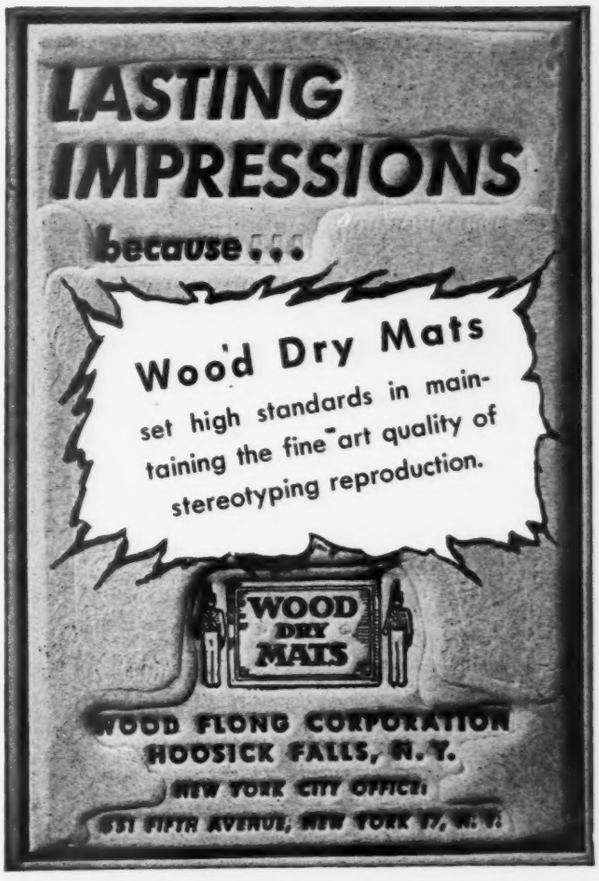
PRECISION LAYON MACHINE

Manufactured in a wide range of sizes for transferring carbon tissue in perfect register to any number of cylinders. This is accomplished by means of a definite key between copy and cylinder, a positive method of fixing the cylinder in the machine and a device for checking accuracy of its position so it can be re-positioned any number of times. A lock on the dividing head secures the cylinder in position. The rubber impression roll is raised and lowered by a gear motor with pressure against the cylinder regulated by an adjustable control. Equipped with counter-balanced register bar, Vernier scale and scribe.

STANDARD PROCESS CORPORATION

Manufacturing Gravure Equipment & Supplies

2704 W. Roscoe Street • Chicago 18, Ill.


LASTING IMPRESSIONS
because . . .
Wood Dry Mats
set high standards in maintaining the fine art quality of stereotyping reproduction.
WOOD DRY MATS
WOOD FLONG CORPORATION
HOOSICK FALLS, N. Y.
NEW YORK CITY OFFICE:
551 FIFTH AVENUE, NEW YORK 17, N. Y.

There's no need for such a fancy 1 in today's printing, but it is necessary to use the *right* numbering machine on your printing equipment.

Designed for small cylinder, high speed presses such as the Miehle Vertical, Kelly, Miller, and the Little Giant, this Lockwheel Model Wetter Numbering Machine permits maximum press speed with assurance of accurate number printing. In a one-piece steel frame, the patented lock bar prevents overthrow of the numbering wheels by inertia and stops wheels from pulling over when in contact with the form inking rollers. Clarity of printing is guaranteed by careful finishing of each number. Send for folder today.

8349 *Number it Better with a Wetter*

WETTER NUMBERING MACHINE CO.

ATLANTIC AVENUE & LOGAN STREET • BROOKLYN 8, N. Y.

SOLD BY ALL DEALERS

Investigate . . .

The NOLAN STEREOSAW

Check these features: Extra large table 28x36" . . . Powerful 2 HP motor . . . Double V-belt drive . . . Heavy base, no vibration . . . Straight edge and side gauge . . . positive elevating mechanism . . . 10" dia. saw blade . . . Rugged ball bearing saw mount . . . Four-wheel chip buggy. Write for prices.

NOLAN CORP.

ROME, NEW YORK

Builders of Quality Printing Machinery

age and page width reduction to the Board of Directors of the ANPA, it seemed unavoidable that stereotype executives in particular should have their say. Following Mr. Messina's address, the opponents of high shrinkage asserted that when a matrix is shrunk by drying details and depth of impression of both type and pictures are lost.

Previously, Messina had said: "We think any loss of printing quality is generally due to poor drying conditions.' He said unsatisfactory results can be attributed to poor equipment of improper operation of good equipment. He also reported his paper has achieved very good reproduction with high shrinkage matrices, and that a man who got good results with low shrinkage mats can get good results with high shrinkage mats.

Pressroom Supt. Paul O. Brannon, Cleveland *Press*, did not agree with Messina. He said his paper had been unable to get satisfactory results with high shrinkage stereotype mats and that the method had lowered printing standards generally. His final comment was: "I don't know how long some of us can go on getting a paycheck for the job we're doing today with high shrinkage."

ANPA Mechanical Committee Chairman Leslie J. Griner arose to state that "Since we must work with high shrinkage it is up to us to find out how we can best do the job. I do not think it is possible to buy a 1 in. shrinkage mat that will not, if properly handled, do what is expected of it." Under questioning, however, he said that depth in halftone reproduction is lost in the mat dried by high shrinkage method. This is the point of contention for which Griner argued—that mechanical executives inform themselves of every possible technique to reproduce good printing stereotype plates.

Mailroom Session

At the Wednesday afternoon Mailroom session, W. E. Gibbons, Production Mgr. of the Chicago *Herald-American* presided. Assisting Mr. Gibbons as Cochairman was Eugene Pritchard, Mailroom Foreman of the San Francisco *Chronicle*. The first item on the program was the report on the Wiretyer operation at the New York *Times*.

Counting and Stacking Mechanism

Under the title, *Mailroom Research and Development*, T. B. Jochem, Development Supervisor, Cutler-Hammer, Inc., Milwaukee, Wis., presented a detailed paper in which he discussed the work done in developing an automatic newspaper counting and stacking unit in the mailroom. In this device the papers are automatically counted and stacked in predetermined numbers and are taken from the pressroom conveyors.

As planned at present, the unit consists of a counting section, a separating section and a table unit. The papers are counted while in lapped relationship, the lapped stream is separated into units consisting of a predetermined number of papers which are stacked on the table. The lapped stream of papers is fed into the device at press speed and individual papers are counted while still in lapped relationship. The separating unit delivers the pre-separated bundle to the stacking table. The table has two functions: It rotates and delivers the stack to a bundle conveyor of the type now standard in mailrooms. The table will accept a 20 in. high stack. Rotation and bundle removal is selective and the bundle can be delivered to either side of the unit.

In the counting section of the device, papers are counted accurately at from 50,000 to 60,000 papers per hr. There is no kick copy, the paper lap is a minimum of 3 in., and the paper stream is of the direct delivery type. It was announced that the first unit, which is now under construction, would be installed in the mailroom of the Milwaukee *Journal*.

Mail Room Discussion

The general discussion following Mr. Jochem's illustrated address was led by

AVAILABLE FOR SALE

complete basic printing line suitable for production of pulp magazines, books, telephone directories, or similar products

- CONSISTS OF 128 PAGE PERFECTOR DELIVERING 4 UNTRIM SIGNATURES 6¾ x 9¾ FROM 54" WEB. CLEAN CUTTING CYLINDERS.
- 1 WESEL CURVED STEREOTYPE CASTING BOX
- 1 CURVED PLANETARY SHAVER
- 1 CURVED TAIL TRIMMER
- 1 DOUBLE BEVELING MACHINE
- 10 BOX SINGLE ACTION SIDE WIRE SHERIDAN GATHERER, STITCHER, COVERER.

Reply Box 482
Printing Equipment Engineer

Speed Flex

THE FASTEST, MOST MODERN JOB PRESS!

for mailing pieces, throw aways, inserts, and all types of form printing

Designed and sold exclusively by Orville Dutro & Son, Inc. Manufactured by Western Gear Works, oldest and largest manufacturer of geared products in the West.

COUPON BRINGS DETAILS

Orville Dutro & Son, Inc.
1206 Maple Ave., Los Angeles 15, Calif.

Please send us full information on SPEEDFLEX high-speed, multiple operation rotary presses.

NAME
ADDRESS
CITY ZONE STATE

NEWSPAPER PRESSES
•
COMPLETE PLANTS
•
LETTERPRESS and OFFSET
•
BINDERY EQUIPMENT

BEN SHULMAN
ASSOCIATES, INC.
500 FIFTH AVE. • NEW YORK 18, N. Y.
Phone: BRyant 9-1132

LEADERSHIP
...demands constant achievement!

That is why each person in this entire plant, excels in his effort to make Hess & Barker's 4 to 8 color rotary letterpress the most profitable printing press in all the world.

Feeding from a roll, Hess & Barker's high speed 4 to 8 color press delivers to a roll or sheets at the rate of 10,000 an hour. Ink savings are enormous. Makeready time cut 'way down. Plates last for triple the impressions.

There is no obligation when you talk with our engineers about the possibility of increasing your production and profits. Telephone or write.

HESS & BARKER

Printing Press and Equipment Manufacturers

212-22 SOUTH DARIEN ST., PHILA. 7, PA.

Telephone: PE nnypacker 5-4070

BEVERIDGE

Your Mat Problems are Our Responsibility

We at BEVERIDGE are quick to accept as our responsibility the solution of your mat problems. And we know you do have difficulties in these days of high shrinkage. Working together, we must solve your problems to win your approval. And that's exactly what we do by providing a mat that meets your most exacting needs. Call for a BEVERIDGE salesman. Put your mat question up to him for solution.

New Products Division

The Beveridge Paper Company

Indianapolis 4, Indiana

Beveridge Dry Mats

THE MONOMELT COMPANY

THE MONOMELT
THE PLANE-O-PLATE
THE HYDRO-CASTER
MONOMELT POWER SHEARS
MONOMELT MOLDING PRESSES
PLASTIC PLATE CURVER
VINYLITE AND ELECTROTYPERS SUPPLIES
BAKELITE MATRIX (Processed by Monomelt)

1611 N. E. Polk St.
Minneapolis, Minn.

"REGAL" MONOCORK

by

New England

This Press Blanket is by far superior to any cork packing that has ever been available to the industry!

We make this claim with no fear of contradiction. Its perfection is attested to by the fact that we have difficulty in keeping up with the demand.

No matter what your reason may be for not having these blankets on your machine, the simple truth is that you are denying yourself the best. Once you learn what "REGAL" has to offer, you too will be a constant repeat user.

YOU BE THE JUDGE!

NEW ENGLAND FIBRE BLANKET COMPANY

164 FREMONT STREET

WORCESTER MASSACHUSETTS

BRANCHES: New York—Chicago—San Francisco—Tulsa

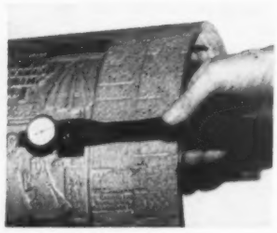
For better impressions
SYNTHOX
THE Ideal WAY
FASTER

Use Ideal SYNTHOX ROLLERS
They stay soft and are so easy to clean!
Always ready to go no matter what the weather. Stay the same size and require no resetting.
Deep velvet solids and sharp, clear type are daily results when you use SYNTHOX rollers.

IDEAL ROLLER & MANUFACTURING CO.
Huntington Park, Calif. Chicago 8, Illinois Long Island City 1, N.Y.

CHAS. T. MAIN, INC.
COMPLETE SERVICES
for
NEWSPAPER AND PRINTING PLANTS
Layouts, Designs, Specifications and Supervision of Construction
Walter E. Wines — Consultant
80 Federal Street, Boston, Mass.
317 South Tryon Street, Charlotte, N. C.

LABORATORY ACCURACY...
in the plant



when you use the CAPCO PLATE GAUGE for checking the thickness of Standard stereotype plates, tubular and flat plates

Some Features
- Automatic readings
- Very maneuverable
- Light and rugged

Capital Tool & Manufacturing Co.
3801 Bunker Hill Road
Brentwood, Md.

Chester Abernethy, Mailroom Foreman of the San Francisco *Call-Bulletin*. Abernethy commented upon the radical changes which have taken place in mailroom equipment and operation recently. He said mailrooms are getting away from hand inserting in the larger plants and are using the Sheridan or similar machines. However, said he, not one of us would assume that we have reached a completely satisfactory mode of operation. Mechanization of the mailroom has brought about the problems of keeping machines in top working order. Mailers will benefit by training so that they may make minor repairs because the time element in newspaper production is precious.

Leon A. Link, Production Mgr., Cleveland *Plain Dealer*, wanted to know if it would be possible to handle a 96 page paper on the new Cutler-Hammer Counting and Stacking machine. Jochem replied by saying that if it were possible to print a 96 page paper at 60,000 papers per hr., the new machine could handle that size paper.

With respect to the lapping distance between papers, Mr. Jochem replied that the minimum distance is 3 in., but that "you can go up to 10 miles if necessary." For Sunday sections no kick sheet is used.

It was announced by a representative of T. W. & C. B. Sheridan Co. that the company is ready to offer a five-box (or hopper) machine, 12 ft. diam., which can be operated at 15,000 copies per hr., without mechanical section opener at $26,000. The larger machine which has been discussed at previous conferences, with mechanical opener, costs $43,500.

W. R. Coddington, Production Mgr., Des Moines *Register* and *Tribune*, commented upon operation of the equipment in that plant. He stated that during the past month, Mailroom Supt. Joe Menard has averaged 11,700 copies per hr. Coddington praised Menard's supervision and also stated that we might as well recognize the importance of having people competent to take care of the new machines properly. He mentioned that Mr. Menard has trained five young men in the care and operation of mailroom equipment.

Mr. Coddington, in the course of his remarks, wondered if it wouldn't be possible to develop a plastic or fabric tape for use in place of wire for bundling papers. He said the Minnesota Mining

The R & B
EXTENSION DELIVERIES
for MIEHLE, BABCOCK, PREMIER and other presses
•
AUTOMATIC PAPER LIFTS
•
Special purpose equipment for the Graphic Arts Industry
CONSULT US ON YOUR PARTICULAR PROBLEM
THE RATHBUN & BIRD COMPANY, INC.
DESIGNERS AND MANUFACTURERS • FOUNDED 1898
DEPT. PE 379 WEST BROADWAY NEW YORK 12, N. Y.

The ELROD produces leads, slugs, rules and base of the highest quality
Ludlow Typograph Company 2032 Clybourn Avenue, Chicago 14

SPECIALISTS
in Moving Printing Equipment
We specialize in dismantling, moving and erecting newspaper and commercial printing presses as well as printing equipment of all kinds. Experienced, trained personnel equipped with modern equipment moves one machine or a complete plant any distance required. All contracts are handled promptly and are fully covered by insurance.
The ALLMEN CO. 8416 LAKE AVE. CLEVELAND 2, O. • OLympic 1-2300

THE DOYLE INFRARED DRYER
Patented
for all types of printing machinery
THE DOYLE VACUUM SHEET CLEANER
Patented
Removes dirt, dust, lint and dry spray from paper while printing
The J. E. Doyle Co., 1220 West 6th St., Cleveland 13, Ohio

CLASSIFIED ADVERTISING

ALL CLASSIFICATIONS

$.75 per line 1 9/16" wide. Minimum ad 5 lines, 29 characters per line. Cash with order.

CLOSING DATE—15th of Month preceding Date of Issue

We will forward all mail addressed to Box Numbers. When answering Box Numbered ads, address as follows: Box Number . . . PRINTING EQUIPMENT Engineer, 1276 West 3rd Street, Cleveland 13, Ohio.

FOR SALE

1 32" x 44" Wagner Offset Proof Press—$800.

1 17" x 22" Thomas Mechanical Collator—$75.

1 36" Rosback Rotary Round Hole Perforator—$1,000.

Wilcox Press, Inc.
445 E. State Street
Ithaca, New York

STOP! LOOK! AND SAVE MONEY!

Goss Flat Shaver 72-D. Good Condition. Available 2 or 3 months.

Hess & Barker Rotary Shaver 4 yrs. old, used only 4 months.

Goss Flat Casting Box 8 col. Excellent condition, no warpage in casting members.

Hoe Monorail Saw & Trimmer.

All items above are for 220 V. 3 Ph. 60 Cy. Electrical Equip.

Write Box 480, Printing Equipment Engineer.

FOR SALE

Radial-Arm and Straight-Line Routing Machine, Style B, manufactured by Ostrander-Seymour Company. Machine is in good condition. Price $500. Machine can be examined in operation. Write for complete details. Orchard Paper Company, 3924 Union Blvd., St. Louis 15, Mo.

STAR CUT CEMENT

Famous since 1936, hundreds of users testify to the effectiveness of STAR CUT CEMENT. Do a better job of mounting photoengravings, stereotypes and electrotypes by using STAR CUT CEMENT. Composing, stereotype, electrotype and photoengraving executives must see that the mounting job is done right. They know the value of a cement that permits mounting cuts quickly and holds them in place. Be sure to use the PROVED cement—STAR CUT CEMENT.

65c per tube—$5.50 per doz.
$5.00 per doz. in 2 doz. lots.
$4.50 per doz. in gross lots.

STAR CEMENT COMPANY
45 Malone Avenue
Belleville 9, N. J.

FOR SALE

Master Etching Machine stainless steel; Goss flat router direct motor operation; Chemco stripping table; Master water cooler; Goss flat shaver with hold down roller. Reply Box 481, PRINTING EQUIPMENT Engineer.

ASK PRINTING EQUIPMENT *Engineer* to help find it!

MEN WANTED • POSITIONS OPEN

Foreman—Offset Pressroom	$7,800
Foreman—Offset Plate Making Dept.	$7,800
Superintendent—Comb. Offset-Letterpress	$6,000-8,000
Estimators	$5,000-6,000
Production Manager, Calendars—Age 30-45	$6,000-10,000
Sales Manager—Printing Machinery	$10,000-12,000
Dot etchers—4 color process	OPEN

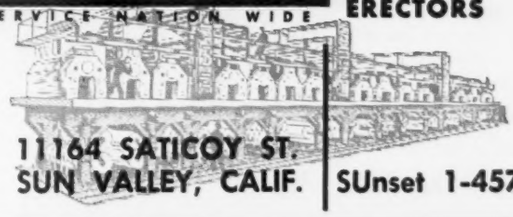
GRAPHIC ARTS EMPLOYMENT SERVICE
Dept. PE-7, 307 E. 4th Street, Cincinnati 2, Ohio

WEB DRYING APPARATUS
for ROTOGRAVURE • WEB-OFFSET • ANALINE LETTERPRESS

B. OFFEN & CO.
168 N. Michigan Ave. Chicago 1, Illinois

LOYAL S. DIXON CO.
SERVICE NATION WIDE

NEWSPAPER PRESS ERECTORS



11164 SATICOY ST.
SUN VALLEY, CALIF. **SUnset 1-4575**

DISMANTLING • MOVING • ERECTING • REPAIRING

NEWSPAPER PRINTING PRESSES
STEREOTYPE MACHINERY & SUPPLIES

JOHN GRIFFITHS CO., INC.
11 West 42nd Street New York 26, N. Y.

CLINE-WESTINGHOUSE
ELECTRICAL EQUIPMENT

Unit Press Drives . . . Reels . . . Automatic Tensions . . . Speed Pasters provide safety and reliability with economy. Whether large or small . . . letterpress or offset . . . your press-room can rely on Cline-Westinghouse Electrical Equipment.

CLINE ELECTRIC MFG. CO.
MAIN OFFICE: 3405 W. 47th St., Chicago 32
410 Bush St. San Francisco — 220 E. 42nd St. New York City

NEWSPAPER & PRINTING PLANT ENGINEERING

NEW BUILDINGS • MODERNIZATION
SURVEYS • CONSULTATION

ROBERT W. DICKERSON
2063 EAST 4TH STREET • CLEVELAND 15, OHIO

& Mfg. Co. had developed a plastic tape but didn't have a machine upon which it could be used for bundling newspapers. The idea in substituting tape for metal wire is to eliminate liability of accident or torn clothing. He mentioned that bundles tied with the plastic tape had been dropped from airplanes and successfully withstood the impact when striking the ground.

Important Visitor to America

General Chairman L. J. Griner introduced at this juncture, Archbald Skjoldebrand, Vice President of the Stockholm (Sweden) *Daily News* and *Express*. The Swedish visitor expressed himself as being delighted with the courteous reception accorded to him during his visit to this country. He said: "In visiting newspaper plants he has found that your production troubles are the same as ours." He observed that in all the discussion about reduction in paper widths, aside from the main objective in conserving newsprint, other important points are that newsprint reduction might permit more people to secure newsprint, a greater number of papers can be printed, or a greater number of pages can be printed in each issue.

Newsprint Economies

An excellent and analytical paper on *Newsprint Economies* was delivered by Earl R. Weiskittel, Pressroom Supt., Youngstown (O.) *Vindicator*. Especially at the present time, it is necessary to conserve newsprint by watching and eliminating so far as possible as causes of waste including damage in transit from mill to the newspaper plant. Weiskittel discussed the continued ANPA Mechanical Dept.'s activity in keeping member plants conscious of waste reduction. He quoted from statements made by executives of a number of newspapers which indicate that they are waste conscious and that they have suggestions which will help in securing waste reduction. At the Washington (D.C.) *Star*, Asst. Business Mgr. C. W. Welch stated the *Star's* low waste record is attributable to an educational program which is constantly being called to the attention of all persons handling newsprint with respect to potential points where damage can occur.

The Hollywood (Calif.) *Citizen* "The important factor which helps tremendously in our overall waste picture is the attitude of the men. We firmly believe each man is waste conscious at all times."

Weiskittel asserted that one of the first and most important things to check when newsprint waste reduction is considered is the transportation of the paper from the mills to the pressroom.

The speaker quoted from former Manager of the Mechanical Dept., Walter E. Wines with respect to the economies which can be effected in waste reduction by the use of a larger roll. This bulletin quoted from was published by Wines 25 years ago. Wines stated that as the diameter and weight of the roll increases, the number of rolls in any given tonnage necessarily decreases. A decrease in the number of rolls used per year has far reaching effects. It automatically decreases the wrapper waste, the percentage of core waste, the percentage of transit damage, the time lost in changing rolls on the press and the amount of printed waste due to roll changes. It may also slightly decrease the handling costs, inasmuch as there would be a smaller number of rolls to handle. Statements that wrapper waste and transit and handling waste would be reduced by the use of a heavy roll may be disputed. "The writer believes . . . that the addition of 100 or 200 lbs. to the weight of an individual roll would not necessitate any more wrapper or would result in any more damage in transport and handling."

Mr. Weiskittel said the wrapper can also be determined by the customer and the mill will cooperate to meet any local condition. Therefore, if you are paying for wrapper instead of paper don't blame anyone but yourself. Incidentally, mills usually use the same length wrapper for all diameter rolls, whether 32 in. or 40 in.

At this point some lantern slides were projected which illustrated how newsprint is handled by the Tulsa (Okla.) *World* and *Tribune* of which Orel M. Harper is Mechanical Supt. Comments of Mr. Harper quoted by the speaker were that: "Our system of handling and dressing the rolls leaves very little opportunity to damage the rolls or lose much newsprint in roll preparation—in fact the loss will not equal one wrap to the roll. Our storage area is as well lighted as the pressroom itself. Our floors are swept after each unloading and are actually mopped with soap and water once or twice a month, thus assuring against damage by mails or other objects on the floor."

It is not possible to report Mr. Weiskittel's address in its entirety, but it probably is the most complete and helpful document prepared recently on the reduction of newsprint shipping and handling waste.

The speaker concluded his address by discussing the value of the rewinder installation in the Youngstown (O.) *Vindicator* pressroom. He stated that "A newspaper that does not have a rewinder is like a kitchen sin without a stopper. You just can't keep the water from running down the drain."

Newsprint Handling at Milwaukee *Journal*

A color movie, showing how newsprint rolls are handled from freight car to the Milwaukee (Wis.) *Journal's* warehouse and reel room was shown. In graphic manner, it illustrated the carefulness with which bulky yet fragile paper reaches the reel room in good condition.

Overhead Newsprint Handling

Elmer Hodgkinson, Mechanical Supt., of the Oklahoma City (Okla.) *Oklahoman* and *Times* first discussed newsprint roll handling at the *Oklahoman* and *Times*. The picture showed roll handling from freight car to pressroom. The paper is handled entirely by machinery. In the warehouse itself an overhead traveling crane does all the work. Three men handle 2000 T. of paper a month as against eight men employed before installation of the hoisting and handling equipment. Overhead tramrails attached to the ceiling enable the hoisting operator to lift and transport rolls individually in vertical position. With this equipment the paper is removed in proper rotation —it doesn't have a chance to become old or brittle. Mr. Hodgkinson remarked that the daily and Sunday circulation is about 270,000.

ADVERTISERS' INDEX JULY 1952

P. E. E. REPRESENTATIVES

WILLIAM L. OSBORN, Eastern Manager, 1712 Grand Central Terminal, New York 17, N. Y. Phone MUrray Hill 6-5980.

MELBURN O. SIMMONS, Mid-West Manager, 333 North Michigan Ave., Chicago 11, Ill. Phone DEarborn 2-6167.

Alico, Inc. 52
Allmen Company, The 70
American Type Founders 13, 14, 15, 16

Bagley & Sewall 59
Baum, Russell Ernest 65
Beveridge Paper Co., New Products Div 69
Blatchford Div., National Lead Co 57
Booth, The E. A., Rubber Co 66
Burgess Cellulose Co 55

Capital Tool & Mfg. Co 70
Certified Dry Mat Corp 65
Challenge Machinery Co., The 54
Cline Electric Mfg. Co 71
Cromwell Paper Co 59
Cutler-Hammer, Inc 18, 19

Dexter Folder Co 57, 63
Dickerson, Robert W 71
Dixon, Loyal S., Co 71
Doyle, The J. E., Co 70
Dutro, Orville, & Sons, Inc 68

Eastern Newspaper Supply, Inc 53

Fairchild Camera & Instrument Corp 12

Goss Printing Press Co., The Inside front cover
Graphic Arts Employment Service 71
Griffiths, John, Co., Inc 71

Hammond Machinery Builders, Inc Inside back cover
Hess & Barker 69

Ideal Roller & Mfg. Co 70
Imperial Type Metal Co 61, 64
Intertype Corporation Outside back cover

Link-Belt Co 8
Linotype Parts Co 61, 65
Ludlow Typograph Co 70

Main, Chas. T., Inc 70
Matrix Contrast Corp 20
Mergenthaler Linotype Co 51
Miehle Printing Press & Mfg. Co 67
Miller Printing Machinery Co 7
Mohr Lino-Saw Co 62
Monomelt Co., The, Inc 3, 60, 69
Morrison Company, The 2

New England Fibre Blanket Co 69
Nolan Corporation 68

Offen, B., & Co 71

Parsons & Whittemore 63
Puglisi-Dutro, Inc 66

Rathbun & Bird Co., Inc 70
Research & Engineering Council 63
Richards, J. A., Co 66
Rouse, H. B., & Co 56

Scott, Walter, & Co 4
Shulman, Ben, Associates, Inc 68
Sta-Hi Corporation 1
Standard Process Corp 67
Strong Electric Corp 6

Timken Roller Bearing Co., The 9
Tingue, Brown & Co 58

Vandercook & Sons, Inc 17

Wetter Numbering Machine Co 67
Wood Flong Corp 67
Wood Newspaper Machinery Corp 10, 11

Hammond Glider TRIMOSAW

"THE SAW WITH THE BALL BEARING TABLE"

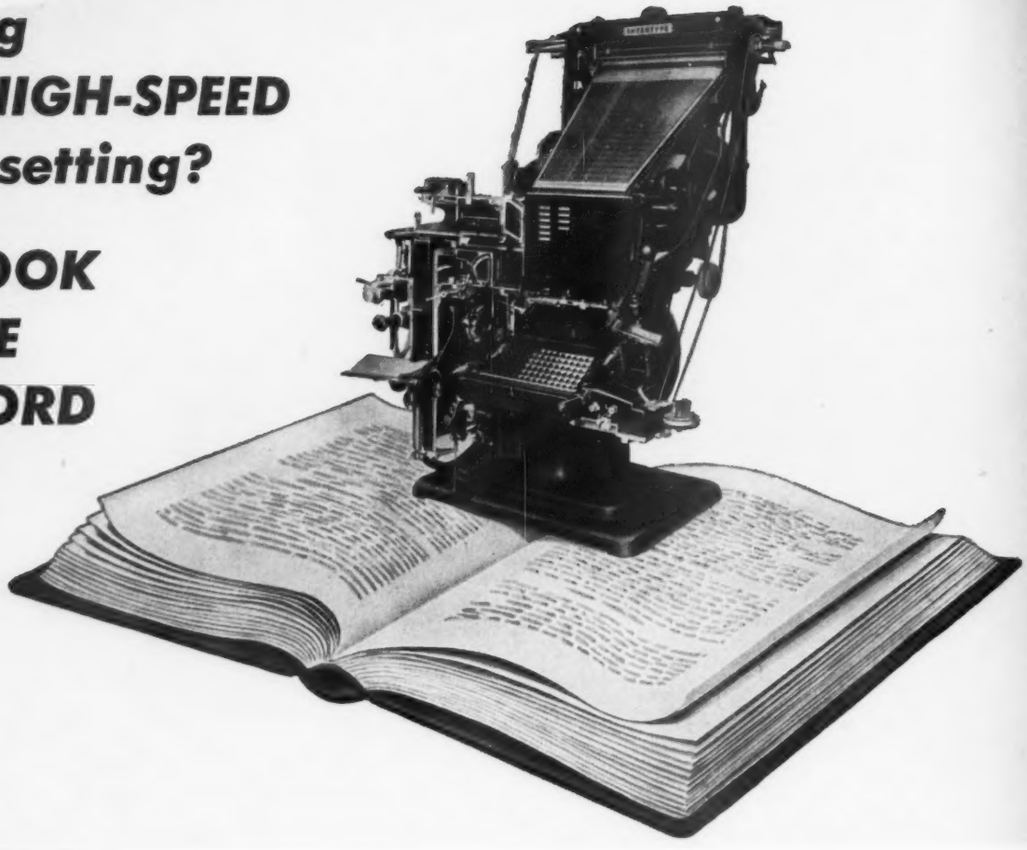
ALSO 2 OTHER TRIMOSAWS; THE MERCURY AND THE BEN FRANKLIN

Hammond Machinery Builders INC.

1604 DOUGLAS AVENUE • KALAMAZOO, MICHIGAN

Thinking about HIGH-SPEED Typesetting?

LET'S LOOK AT THE RECORD



• THERE has always been plenty of *speed to spare* in the streamlined Intertype® line composing machine. That's why the basic Intertype is easily adapted to present high-speed requirements. . . . These *Intertype firsts* have been "on the record" for years.

Three-Pitch Distributor Screws assure dependable distribution by handling a large volume of matrices per minute at *normal traverse speed.*

Proportional Channel Entrances, tailored to variable matrix widths, insure positive drop of matrices into their proper magazine channels.

One-Piece Escapements assure dependable, *instant* release of matrices from the magazines.

Extra Large Metal Pot holds more metal and keeps it at a more even temperature for high-speed casting.

Positive Assembler handles increased flow of matrices with unmatched smoothness and precision.

Direct Acting Keyrods eliminate lost motion between keyboard and magazine.

Automatic Mold Cooling Blower maintains correct mold temperature at peak production speed.

PLUS THESE EXCLUSIVE HIGH-SPEED FEATURES!

Unmatched Flexibility. One, two, three or four magazine models are available to suit both your current and future type production requirements.

Visilite® Magazines. For really fast matrix travel and easy checking of matrices at a glance while they are *in the magazine channels.*

Extra Heavy Pedestal Base lowers the machine center of gravity and provides maximum stability which means minimum vibration and smoother operation.

Century Schoolbook and Futura Bold

Intertype Corporation, Brooklyn 2, Chicago 10, Los Angeles 15, San Francisco 11, New Orleans 10, Boston 10
In Canada: Toronto Type Foundry Co. Ltd.: Toronto, Montreal, Winnipeg, Vancouver, Halifax

For HIGH-SPEED Typesetting . . .
Look to Progressive INTERTYPE